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# A USERS' GUIDE FOR SMEs IN THE BIOTECHNOLOGY FIELD

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## PREFACE

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## PREFACE

In the present emerging global market, new technological advance represents one of the main ways to guarantee EU competitiveness. This is why new technologies constitute a key for our future economic development. Among those, information technologies and biotechnology probably present the biggest opportunities.

Modern biotechnology is one of these key emerging technologies which Europe must harness successfully to sustain economic growth and competitiveness. Today, biotechnology related sectors employ between 300,000 and 400,000 people in 1995. In 2005 this could rise to as much as 3,000,000.

The emergence of new technologies is presenting challenges to both industry and the public sector. Some of these technologies have far reaching implications for a large number of industrial sectors, creating wealth and employment, resulting in the increased competitiveness of Europe's economy.

Modern biotechnology in its many guises has developed pharmaceutical products which are viewed as medical milestones. The direct benefits for human beings are without precedence. Human insulin (against diabetes), Interferon (against cancer) and EPO (=erythropoietin, against blood deficiencies) are amongst the most famous. Biotechnology doesn't, however, only encompass health care and diagnostics. For example, food products with higher nutritional values and longer shelf lives as well as dietary and hypo-allergenic products are now being developed. For example, a strain of rice is now being developed which those with gluten allergies could consume. Furthermore, the application of modern biotechnological techniques will have environmental implications: pollution from industry, households and agriculture can indeed be significantly reduced.

A strong European research base is vital to the continued success of this fledgling, innovative industry. However, the ability to commercially exploit research in this area is also of prime importance. Europe has made important progress in recent years, but still lags behind the USA in most indicators of economic performance. Unless substantial steps are taken now by those actors involved (industry, venture-capital firms, public authorities, and academia) the gap will only

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continue to widen in the short, medium and long term. In this, the role of SMEs is of crucial importance, especially because biotechnology firms, by their nature, are often start-ups where new products are developed. Therefore, it is up to public authorities and venture-capitalists, at both the national and European level to help engender a more conducive external business environment for SMEs to succeed and grow.

With this in mind, DGIII has decided to launch the first edition of this Users' Guide to encourage industrial operators to make the most of this irreversible trend in our societies, fully aware that opportunities inherent in the field of modern biotechnology are immense both in economic and social terms and that SMEs have a unique and important role to play in this area.

This Users' guide on biotechnology for small and medium-sized enterprises (SMEs) aims at providing to the industry practical views on the responsible authorities (Member States and European Union) and on the fundings (Venture-Capital, <sup>4</sup> Framework Programme, etc.) available in this area.

The European Commission's role here is, therefore, to identify, for the European SMEs, both the European/National programmes and the actors (both private and public, at national and European level) who can enhance the global transfer of information and expertise to SMEs, helping them to secure a business environment which will grow into the next century, creating jobs and improving the environment in which we live.

***Martin Bangemann***

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**INTRODUCTION**

This Users' Guide for small and medium sized enterprises (SMEs) in the biotechnology field is based upon a number of key factors which have been highlighted in the Commission's Green Paper on Innovation.

\* The identification of the biotechnology sector as one of dynamic growth and importance for Europe.

\* The importance of innovative SMEs within the sector.

\* The difficulties which technologically innovative SMEs face in obtaining suitable venture capital.

\* A lack of awareness amongst many SMEs as to the supportive EU and national programmes aimed at assisting SMEs.

\* Competition from the USA, where conditions for the development of the biotechnology sector are particularly favourable.

The objective therefore of this Users' Guide is to provide SMEs with an easy to understand and yet comprehensive guide which :

\* Identifies and explains the various European and national programmes which can be of significant assistance to SMEs in the biotechnology field.

\* Identifies and explains sources of funding - both in the programmes and from commercial sources.

\* Provides a comprehensive and detailed listing of competent authorities, useful contacts, trade associations etc.

As such, this guide can be seen as a contribution to the implementation of the Commission's First Action Plan for innovation in Europe.

## SECTION 1. EUROPEAN PROGRAMMES

### *1.1 Introduction and Purpose*

For SMEs involved in biotechnology, substantial assistance can be obtained via several European programmes. Whilst this assistance predominantly takes the form of funding, it also covers important areas such as facilitating transnational partnerships, promoting scientific exchanges, sponsoring research and improving technology transfer.

Most of the major European schemes are set up within multi-annual Framework Programmes. 1998 marks the transitional year between the Fourth and Fifth Framework Programmes. Therefore, this Guide provides a detailed listing of the schemes currently available under the Fourth Framework Programme and an indication of anticipated changes once the Fifth Framework Programme is agreed.

All programmes have the common aim of improving the scientific and technical base of the European Community's businesses to enable them to be compete more effectively in the global market. The programmes also exist as extensions of national initiatives, complementing and enhancing the work being done in the Member States.

They seek to address three major weaknesses perceived to be present in Europe, when compared to its competitors:

- A low level of investment in R&D.
- A lack of co-ordination between the various levels of R&D activities, programmes and strategies.
- A limited capacity to transfer scientific and technical knowledge through to industry and commerce.

Finally, it should be noted that the application procedures, rules, eligibility and criteria can vary significantly within each programme. It is also important to note that, in the majority of cases, these programmes are operated via intermediaries in the Member States. That is, either national governments, local authorities, other public bodies, banks or Venture Capital companies. Their assistance should be sought in formulating an application proposal.

### *1.2 The Fourth Framework Programme 1994 - 1998*

The Fourth Framework Programme has been running since 1994 and will continue through to 1998. The European Union allocated an overall budget of ECU 13,100 million which was increased by ECU 115 million in September 1997. Most of the European Union funding is provided at the 50% level which assumes that industry or research organisations will be providing an equivalent amount. For the individual programmes, the Commission and expert advisors draw up an agenda or Work Programme, identifying priorities and topics for the areas of research.

The Fourth Framework Programme has brought together universities, research centres and private companies to support fundamental research of the highest quality, paying particular attention to projects which have a direct impact on competitiveness and quality of life.

**1.2.1 Structure of the Fourth Framework Programme**

The research and technological development (RTD) programmes as part of the EU Fourth Framework Programme, are available to private and public companies, research institutes and universities. The programmes encompass research in all areas of technology ranging from Information and Communication Technologies, to Socio-Economic Research. Projects must involve two or more parties and generally at least one of the parties must be from an EU Member State.

The programmes are divided into four sections of activity as illustrated in Table 1.1.

**TABLE 1.1 FOURTH FRAMEWORK PROGRAMME ACTIVITIES**

**First Activity** Research, Technological Development and Demonstration Programmes

**Second Activity** Cooperation with Third Countries and International Organisations

**Third Activity** Dissemination and Optimisation of Results

**Fourth Activity** Stimulation of the Training and Mobility of Researchers

The First Activity covers seven areas of research, one of which is life sciences and technologies. Biotech2, Biomed2 and FAIR programmes all lie within this area of research. Table 1.2 clearly outlines all the areas of research within the First Activity of the Fourth Framework Programme.

**TABLE 1.2 A BREAKDOWN OF THE THEMES AND SUBJECTS UNDER THE FIRST ACTIVITY**

- 1 INFORMATION AND COMMUNICATION TECHNOLOGIES**
  - a Telematics applications
  - b Advanced communication technologies and services
  - c Information technologies
- 2 INDUSTRIAL TECHNOLOGIES**
  - a Industrial and materials technologies
  - b Standards, measurements and testing
- 3 ENVIRONMENT**
  - a Environment and climate
  - b Marine sciences and technologies
- 4 LIFE SCIENCES AND TECHNOLOGIES**
  - a Biotechnology

- b Biomedicine and Health
  - c Agriculture and fisheries (including agro-industries, food technologies, forestry, aquaculture and rural development)
- 5 **NON NUCLEAR ENERGY**
- 6 **TRANSPORT**
- 7 **TARGETED SOCIO ECONOMIC RESEARCH**

The Second Activity of the Fourth Framework Programme encourages co-operation with researchers in countries outside the EU/ EEA. The RTD programme implementing this activity is called INCO (Cooperation with third countries and International Organisations). INCO is the major programme under this activity.

INNOVATION is the programme which covers the Third Activity and is aimed at the dissemination and exploitation of research findings and results. The Innovation programme has a specific remit to foster the financing of innovation and has developed specific actions in this area such as I-TEC, FIT and LIFT.

The Fourth Activity concentrates on researchers and their training and mobility, through the Training and Mobility of Researchers (TMR) Programme.

The six programmes mentioned are dealt with in more detail later on in sections 1.2.3 to 1.2.8

### 1.2.2 Implementation of the Fourth Framework Programme

For some of the RTD programmes, Technology Stimulation Measures for SMEs (TSMEs) have been implemented specifically to encourage SMEs to participate in the Fourth Framework Programme.

TSMEs are based on the Co-operative Research or CRAFT actions which began in 1991. Their aim is to help SMEs prepare proposals for Exploratory Awards (research projects) and to aid those companies with little or no resources for research, to employ a third party to carry out the research on their behalf. Information on these measures and assistance

with participating in them is available through the CRAFT Network of Focal Points, established in each EU Member and Associated State.

Those programmes which do not incorporate TSMEs have alternative support measures for SMEs such as concerted actions and demonstration projects. These horizontal measures are available through the Fourth Framework Programme and are available to provide aid with implementing the individual RTD programmes.

The activities of the Fourth Framework contain the following programmes which could be of interest to an SME in the biotechnology field.

### 1.2.3 Biotech 2

The full title of this programme is *Specific research, technological development and demonstration programme in the field of biotechnology', 1994-1998.*

The main objective of this programme is to bring together the wide range of opportunities arising out of the advances in molecular and cellular biology and to facilitate the carrying through to industry of added value products and processes, as well as increasing the resultant social benefits.

Activities within RTD are centred around objectives requiring and addressed by concertation (in immunology, trans-disease vaccinology, structural biology) and objectives treated by means of horizontal activities (e.g. ethical, legal, social aspects, public perception). Research actions are varied in order to facilitate the transfer of results into both industrial and social benefits. Those economic sectors, such as the pharmaceutical, chemical, agricultural and food, which depend heavily on biotechnology are given close attention to ensure continued development and growth.

The Biotech programme is also promoting the Biotechnology Industrial Platforms (see section 1.4.4), and the "Biotechnology and Finance" forum (see section 1.4.5).

Support for Biotech 2 is available for shared-cost RTD projects, demonstration projects, SME support measures, certain areas of concerted actions and accompanying measures such as seminars, conferences, training and studies.

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#### 1.2.4 Biomed 2

The full title of this programme is *Specific research, technological development and demonstration programme in the field of biomedicine and health, 1994-1998*'.

The objective of Biomed 2 is to enhance co-ordination between research and development activities and their application in industry. The ultimate aim of Biomed 2 is to improve the health of citizens within the Community and increase competition in the health industry across all Member States.

Research under this programme has, to a great extent, been focused in the areas of pharmaceuticals, biomedical engineering, neurological research and those diseases with major socio-economic impact (e.g. cancer, AIDS, infectious diseases, age-related problems, occupational and environmental health), human genome, public health research and biomedical ethics. Horizontal activities such as the ethical, social and legal implications of this research are also given considerable attention. Research activities are encouraged to build upon and complement investments already made in the biomedical and health industries. A synergy of national efforts with research from all the above mentioned disciplines have combined to achieve this aim.

For certain areas of research, support is available for shared-cost projects, demonstration activities, concerted actions, research within thematic networks, standardisation activities as well



as accompanying measures (studies, training, conferences, seminars).

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**1.2.5 FAIR**

The *Fisheries, Agricultural and Agro-industrial Research (FAIR)* programme includes agro-industry food technologies, forestry, aqua-culture and rural development. It covers the period of 1994 - 1998.

The programme has four main objectives:

1. To continue the competitiveness of Europe’s agro-industry and primary production through developing new technologies, taking into account customer needs.
2. To improve the quality of agriculture, forestry and fish products particularly food products.
3. To contribute to implementing policies for agriculture, rural development, fisheries, environment and the internal market.
4. To encourage closer ties between production and the use of biological primary materials.

The research covers many areas and specialised subjects. For example, the integrated production and processing chains including the biomass and bioenergy chains, ‘green’ chemical and polymer chains and forestry-wood chains; processing methodologies, enlarging chemical and physical processes, bioprocessing and control systems; genetic science and advanced technologies for nutritious foods; agriculture, forestry and rural development; fisheries and aqua-culture.

There is also opportunity under the FAIR programme for establishing European networks and horizontal activities such as demonstration projects, the ethical, legal and social aspects, along with specific measures to support SMEs.

Support is also available under the FAIR programme for shared-cost RTD projects, research within thematic networks, SME support measures and demonstration projects. For some areas, concerted actions are available as are accompanying measures (studies, training, seminars, conferences).

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**1.2.6 INCO**

This is a specific programme to encourage cooperation with third countries (i.e. non EU/ EEA countries) and International Organisations (INCO) and has two major aims:

1. To strengthen scientific and technical capabilities within the EU/ EEA through cooperation with third countries.
2. To contribute to the solution of particular problems in third countries through the support and coordination of EU/ EEA researchers with those in the third countries concerned.

There are three major instruments for achieving these aims:

1. Calls for research proposals in sectors of importance to Central and Eastern European Countries (CEEC) and the New Independent States (NIS) of the former Soviet Union (INCO-Copernicus, INTAS) and in sectors of importance to developing countries (INCO-DC).
2. Financial support to encourage the participation of CEEC/ NIS research institutions in the Activity 1 programmes.
3. Negotiation of scientific and technical (S&T) agreements which provide reciprocal access for EU researchers to RTD programmes in certain industrialised countries (US, Canada, Australia, South Africa).

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**1.2.7 Innovation**

The *Innovation Programme* aims at disseminating and exploiting research findings and results, with specific emphasis upon SMEs. SMEs are given help within the Innovation Programme to prepare proposals for projects which can be submitted for approval on a continuous basis. They are evaluated in batches every three to four months.

The objectives of the Innovation programme are two fold:

1. To achieve maximum exploitation and dissemination of results from EU research programmes and convert them into innovations.
2. To aid transferral of technologies which can support and enhance national and regional initiatives. Thus encouraging a trans-European dimension within these initiatives.

SMEs can utilise the Innovation programmes in three ways:

**Innovation Relay Centres** : These IRCs are independent businesses which act as technology consulting offices and can provide advisory services. Euro Info-Centres can be contacted for the

address of local IRCs.

**Dissemination of Technology** : This activity focuses on the need for industries to absorb and adopt the new technologies across the Member States and to exchange experiences and information.

**Financial Assistance** : This measure includes both direct and indirect support through a network of intermediaries (eg. European Venture Capital Association, European Association of Security Dealers, Innovation and Technology Equity Capital (I-TEC), The European Investment Fund, Help Desk on Innovation Financing.

**Innovation Management Techniques** : In addition, SMEs may benefit under Innovation Management Techniques (IMTs). IMTs are designed to:

Promote effective use of techniques and management methods by SMEs.

Harmonise methodologies and disseminate good practices among SMEs.

Strengthen the professionalism of public and private consultants in this field.

Part of the ECU 352 million allocated to the programme is held in reserve ~~ad hoc~~ scientific and technical support of other policies. This reserve is awarded on a competitive basis. An additional 1% of the first activity budget is kept for dissemination and exploitation of research activities.

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#### **1.2.8 The Training and Mobility of Researchers**

This programme, entitled *Specific Research and Technological Development Programme in the Field of the Training and Mobility of Researchers - 1994-1998* (TMR), promotes the development of human resources in the field of research.

Activities include Research Networks which involve five participants from at least three countries, working on common, co-ordinated research for a clearly defined RTD project. Also included is access to large scale facilities and to Training Through Research which covers grants for researchers wishing to work in another EU Member State.

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### **1.3 Fifth Framework Programme 1998 - 2002**

#### **1.3.1 Introduction**

1998 - 2002 will be a period of rapid change for Europe as several crucial decisions and changes are decided. For example, the move to a single currency, the opening of accession negotiations, reform of the structural funds and the Common Agricultural Policy. In response to this scenario, the **Fifth Framework Programme** will have a degree of flexibility, leaving scope for new themes to be introduced. It will also have speedier procedures and simplified access to programmes. This will improve the implementation of the programmes and attract greater participation from the Member States. The new framework, as explained in 1.3.2 will also be much more user friendly for SMEs - providing easier access to RTD and associated finance.

Several changes from the previous programmes are anticipated including a more consolidated approach to research efforts, incorporating new topics and changing the whole organisation of European research. These changes should encourage better support for the creation of new ideas which address the realities of society's demands and reinforce links with organisations which can enhance the exploitation of European research results.

#### **1.3.2 The Structure of the Fifth Framework Programme**

The proposed programmes within the Fifth Framework are organised around four themes which reflect the framework's main priorities:

1. Unlocking the resources of the living world and the ecosystem.
2. Creating a user-friendly information society.
3. Promoting competitive and sustainable growth.
4. Preserving the ecosystem.

And three horizontal programmes:

1. Confirming the international role of Community research.
2. Innovation and participation of SMEs.
3. Improving human potential.

The horizontal programmes are comprised of specific activities which are linked to their objectives. These activities ensure coherence in their equivalent activities carried out under the thematic programmes.

The horizontal programmes are concerned with innovation and the participation of SMEs, allowing easier access to research activities and their results. They also aim to develop technology transfer mechanisms and simplify the decision making process by incorporating qualified majority voting into the system. Easier access to finance for innovation will also be

addressed especially to encourage the participation of SMEs.

### 1.3.3 Implementation of the Fifth Framework Programme

The Fifth Framework Programme will be more selective about which research topics are awarded funding so as to ensure a greater and more effective concentration of resources. It will also be more transparent with greater co-ordination and exchange of information between the Commission and national/regional levels. This will help engender a more rapid response time in pressurised or emergency situations. Thus, this process will allow for the unexpected and will improve the social impact of research activities.

### 1.3.4 Proposed Budget for the Fifth Framework Programme

A budget of ECU 16.3 billion has been proposed by the Commission to finance activities under the Fifth RTD Framework Programme for the period 1998-2002. This budget represents an increase of ECU 3.1 billion (+23.5%) from the Fourth Framework Programme (1994-1998).

Of the ECU 16.3 billion proposed, a sum of ECU 14.8 billion is to be reserved for RTD activities under the EC Framework Programme. These proposed figures represent the maximum level of funding available for activities under the Fifth Framework Programme. The proposed allocation of resources is shown in Table 1.3.

**TABLE 1.3 PROPOSED BUDGET FOR FIFTH FRAMEWORK PROGRAMME FOR RTD ACTIVITIES**

#### Indirect actions

- First activity *Thematic programmes*

Unlocking the resources of the living world and the ecosystem	3,925 MECU
Creating a user-friendly information society	3,925 MECU
Promoting competitive and sustainable growth	3,925 MECU

- Second activity *Horizontal programme*

Confirming the international role of Community research	491 MECU
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- Third activity *Horizontal programme*

Dissemination and optimisation of results	350 MECU
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- Fourth activity- *Horizontal programme*

Improving human potential	1,402 MECU
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#### Direct actions

Joint Research Centre	815 MECU
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<b>TOTAL</b>	<b>14,833 MECU</b>
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### **1.4 Additional Programmes and Initiatives Outwith the Framework Programmes, Relevant to SMEs within the Biotechnology Sector**

#### **1.4.1 SMEAP 3C (1997 - 2000)**

The Third Multi-annual SME Programme (SMEAP 3C 1997-2000) fits within the framework of the Integrated Programme. This Third Programme, therefore, provides the legal and budgetary basis for the Community's specific SME policy actions. As such, it forms part of the Commission's Confidence Pact on Employment and provides for concrete actions which help to exploit SMEs full potential for job creation. For example, helping to increase the number of SMEs participating in the Internal Market and promoting their internationalisation. The third Multi-annual SME Programme will produce a huge multiplier effect throughout the Union as a whole.

The budget allocated is approximately ECU 127 million. The programme exists to help ensure better information transfer to SMEs, to internationalise and stimulate competitiveness, to enhance access to research, enhancing innovation and training. It also aims to promote an entrepreneurial spirit within SMEs. Finally, the programme exists to enhance the Communities knowledge of the needs of SMEs, thus improving its own policies towards SMEs.

Through the scheme the Commission also aims to improve the financial environment for enterprises by:

- \* support for the development of mutual guarantee schemes, in particular through the European Association of Mutual Guarantee Schemes
- \* encouraging the growth of EASDAQ
- \* improving access to private Venture Capital.

SMEs can also benefit from SMEAP 3C through:

- **Euro Info Centres:** This network comprises 232 Euro Info Centres (ECIs) in the European Union and 20 Correspondence Centres (EICCs) which provide information and advice to businesses on Community legislation and programmes. These also act as 'First Stop Shops', directing SMEs requests to the most appropriate source, including other Community networks. 37 centres particularly interested in the field of R&D and technology are members of the EIC R&D group.

- **Co-operation Networks (BC-Net and BRE Net):** These networks help businesses develop transnational financial, commercial or technical partnerships with other SMEs.

- **Europartenariat:** SMEs are able to utilise business fairs held twice a year under the auspices of this programme. These fairs are always held in regions in receipt of Structural Fund assistance. The objective is to provide a meeting place for SMEs and other businesses to foster transnational actions.

- **Interprise:** Is based on the successful formula of the *Europartenariat programme* to back local,

regional and national initiatives. Again it's objective is to stimulate contacts between business managers and encourage co-operation between SMEs. At least three different Member States must be involved.

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#### 1.4.2 COST

European Co-operation in the Field of Scientific and Technical Research (COST), provides a flexible framework for coordinating pre-market research projects. The framework encourages co-operation between industry, especially SMEs, scientific institutes, universities and national research centres. The programme works closely with INCO.

COST operates in the Member States as well as Iceland, Norway, Switzerland, the Czech Republic, Slovakia, Hungary, Poland, Romania, Estonia, Slovenia, Croatia, Malta and Turkey. Its activities cover a wide spectrum including, biotechnology, food technology, agriculture and medical research.

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#### 1.4.3 EUREKA

EUREKA is a scheme which promotes collaboration amongst European companies and research institutes involved in advanced technology projects. It is aimed at facilitating industry led, market driven, collaborative projects in all sectors of technology with the objective of introducing new products, processes and services with world market relevance.

Medical and Biotechnology are specified research fields covering:

- medical technologies
- agro-biotechnology
- food processing
- genetic engineering of plants
- biotechnology processes
- animal breeding.

In order to qualify for EUREKA projects must comply with EUREKA objectives, involve more than one European country, demonstrate benefits, use advance technologies, have a market

orientation and have appropriately qualified participants with adequate financial commitment including public funding.

Five umbrella organisations act as focal points for analysis and generation of innovative project ideas. These are:

- FAMOS
- Eurolaser
- Eurocare
- Euromar
- Euroenviron

For SMEs, the initial point of contact with Eureka is through National Project Co-ordinators (NPC). Their task is to provide information for proposing and launching projects. They will also assist in finding transnational partners for project proposals.

Any SME wishing to launch a Eureka project must go through six steps. These are:

- \* Find a partner using existing contacts, NPC or the Eureka database.
- \* Develop and propose the project using forms obtained from the NPC.
- \* Submit the project to the NPC for their evaluation and approval.
- \* Once the project is approved, seek public funding.
- \* Gain endorsement from the High Level Group (HLG) as to the Eureka status of the project
- \* The endorsed project is announced by Ministerial Conference.

SMEs may also join an existing project as a new partner. This process involves five steps:

- \* Identify an existing suitable project via NCP or Eureka database.
- \* Contact the lead partner and begin negotiations for entry.
- \* Define participation, roles and formalise an agreement.
- \* Inform NCP and Eureka Secretariat.
- \* Notify HLG and update database.

The Secretariat is based in Brussels.

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#### 1.4.4 Industrial Platforms



SMEs wanting to move products from bench trials to a market launch will find this programme helpful. The purpose of creating Industrial Platforms is to facilitate and speed up the transfer process.

Industrial Platforms are technology driven industrial groupings established on the initiative of industry around specific areas or projects of the Biotechnology EC programme. The main objective of Industrial Platforms is to maximise the technology transfer from academia to the industrial sector. Industrial Platforms are open to any European company interested, irrespective of their participation in a particular project. Industrial platforms are not only recipients of the results stemming from the Community's Biotechnology projects. They often provide contractors and commission services with expert advice on industrially relevant topics.

Table 1.4 lists the Industrial Platforms currently running.

**TABLE 1.4 INDUSTRIAL PLATFORMS**

**Industrial Platforms**

ACTIP - Animal Cell Technology Industrial Platform

BACIP – Bacillus subtilis Genome Industrial Platform

BBP – Biotechnology for Biodiversity Platform

FAIP – Farm Animal Industrial Platform

HAE 2000 – Healthy Aging Europe

IPM – Industry Platform for Microbiology

IVTIP – In Vitro Testing Industrial Platform

LABIP – Lactic Acid Bacteria Industrial Platform

PIP – Plant Industry Platform

SBIP – Structural Biology Industrial Platform

TEP – Tissue Engineering Platform

YIP – Yeast Industry Platform

The Commission contact is:

**Contact** Mr Stéphane Hogan

**Address** DG XII

**Tel.** +32 2 296 29 65

**Fax** +32 2 299 18 60

**email:** [Stephane.Hogan@dg12.cec.be](mailto:Stephane.Hogan@dg12.cec.be)

#### 1.4.5 Biotechnology and Finance Forum

The Commission Biotechnology programme and the European Association of Securities Dealers (EASD) have set up an ongoing "Biotechnology and Finance" forum. This forum should allow

the development of links between the scientific, industrial researchers, biotech companies, etc.) and the financial communities (investors, etc.), thereby promoting the creation and development of biotechnology companies in Europe.

Under the umbrella of the Biotechnology and Finance forum, the Commission is willing to encourage the networking of key players in biotechnology entrepreneurial initiatives in order to develop interactions and contacts (such as through the first conference entitled, "Promoting Biotechnology Entrepreneurial Initiatives" on 12-14 May 1998).

The Commission contact is:

**Contact** Dr. P. de Taxis du Poët

**Address** DG XII-E-1, Biotechnology

**Tel.** +32 2 295 40 43

**Fax.** +32 2 299 18 60

**Email:** [Philippe.de-Taxis-du-Poet@dg12.cec.be](mailto:Philippe.de-Taxis-du-Poet@dg12.cec.be)

The EASD contact is:

**Contact** Ms A-M Lamodière

**Address** 56, rue des Colonies, box 15, Brussels, B-1000

**Tel.** +32 2 223 03 07

**Fax.** +32 2 227 65 24

**Email:** [easd@tornado.be](mailto:easd@tornado.be)

**1.4.6 Promotion, Co-operation and Information for SMEs**

The specific interests of SMEs are overseen by Directorate General XXIII *Enterprise Policy, Distributive Trades, Tourism and Co-operatives*, and this DG runs an active programme for SMEs.

A total of ECU 112.2 million was allocated to the action programme for Promotion, Co-operation and Information, 1993-1999. The existence of the European Economic Interest Grouping (EEIG), which is the legal instrument for co-operation, reinforces the Union's action in the field of partnership. A Grouping acquires full legal status when its registration is published in the Official Journal of the European Communities. It has rights in all Member States encompassing industrial property rights, contracts, legal proceedings and property.

The existence of the European Economic Interest Grouping (EEIG), which is a legal instrument for co-operation, reinforces the Union's actions in the field of partnerships. A grouping acquires full legal status when its registration is published in the Official Journal of the European Communities. It has rights in all Member States encompassing industrial property rights, contracts, legal proceedings and property.

#### 1.4.7 BRE-Net (Bureau de Rapprochement des Entreprises) and BC Net (Business Co-operation Network)

SMEs seeking a partner - whether in their own region, nation, transnationally or in third countries should use either the BRE Net or the BC Net. These networks cover all sectors of economic activity and all possible types of co-operation or partnership.

Therefore an SME may be able to find a partner from the existing database or, if not, add their needs to the system. The BC Net carries out research on a confidential basis, whilst the BRE Net is totally open.

For more information contact Unit B2 within DGXX of the European Commission:

**Contact Name:** BRE Help Desk  
**Address** European Commission, Directorate General XXIII - B2  
 Rue de la Loi 200, - AN80, B-1040 Brussels  
**Tel.** +32 2 295 91 17  
**Fax** +32 2 296 42 71  
**email:** [bre-helpdesk@dg23.cec.be](mailto:bre-helpdesk@dg23.cec.be)

**Contact Name:** BC Help Desk  
**Address** European Commission, Directorate General XXIII - B2  
 Rue de la Loi 200, - AN80, B-1040 Brussels  
**Tel.** +32 2 296 28 08  
**Fax** +32 2 296 25 72  
**email:** [bcnet-helpdesk@dg23.cec.be](mailto:bcnet-helpdesk@dg23.cec.be)

#### 1.4.8 Europartenariat and Interprise

SMEs are able to utilise the business fairs held twice a year under the Europartenariat. These business fairs are always held in regions in receipt of Structural Fund Assistance. The objective is to provide a meeting place for SMEs and other businesses to foster transnational cooperation.

As well as the normal trade stands, there are discussion groups and meeting facilities.

SMEs can also benefit from the Interprise Programme which promotes and sponsors inter-regional initiatives and to promote partnerships. At least three regions must be involved - either nationally or transnationally and they may be extended to the CEECs.

Between 30-50% of the costs of initiatives under Interprise may be obtained from the Commission, with a maximum of 60,000 Ecus.

For further information on the two partnership instruments above please contact:

**Address** European Commission, Directorate General XXIII - B2

Rue de la Loi 200, - AN80, B-1040 Brussels

**Tel.** +32 2 296 50 03

**Fax** +32 2 296 29 04

## ***1.5 The European Regional Development Fund and the European Social Fund***

### **1.5.1 Introduction**

One of the principal aims of the European Union is to ensure that there is a reduction in economic disparities between the different regions of Europe. Greater economic and social cohesion is encouraged by channelling financial assistance and resources to the disadvantaged regions of Europe through a series of inter-related funds known as the Structural Funds. The Structural Funds consist of the European Regional Development Fund (ERDF), the European Social Fund (ESF), the European Agricultural Guidance and Guarantee Fund (EAGGF) and the Financial Instrument for Fisheries Guidance (FIFG). Assistance is also provided through the European Investment Bank and a number of additional financial instruments including the new Cohesion Fund for the most disadvantaged member countries - Portugal, Greece, Ireland and Spain.

It is possible for SMEs to gain access to funding under both the ERDF and ESF, but this access will be dependent upon two key factors:

in general, location within an assisted area

fit of proposed project within a specific programming document.

### **1.5.2 Accessing ERDF and ESF**

As outlined above access by individual SMEs is dependent both upon location and fit of the proposed project within a specific programming document. Access may be as an individual SME, via programmes part funded by ERDF/ESF or via business parks, research centres etc which have been funded by ERDF. ESF funds are awarded specifically for training projects.

Given the largely location specific nature of these funds, specific programmes under ERDF/ESF are dealt with in Section 4 National Programmes.

## **SECTION 2. OTHER SOURCES OF FINANCE**

### ***2.1 Introduction***

A recent survey of some 450 European biotech SMEs identified access to finance and credit as a major limiting factor on company growth and development. Most research areas involved both

high resource demands, which SMEs were unable to fund internally and a high level of risk - making them unattractive to outside investors.

The *'First Action Plan for Innovation in Europe'*, adopted by the Commission at the end of 1996, identified the lack of early stage capital (the finance required to get an innovative venture off the ground)– as one of the main barriers to innovation in Europe. High growth innovative companies, acknowledged as essential sources of new jobs, frequently face special difficulties in tapping into existing sources of venture capital in their early stages. Two important reasons are:

- \* Venture capital operators find it difficult and costly to assess the prospects of these companies because of the technology involved.
- \* Venture capital operators participate in the management of companies in which they invest – but technologically innovative companies demand high levels of management attention over a long period of time.

It is this funding need which was clearly recognised by the European Commission, when it adopted, on 5 May 1997, on the initiative of Commissioner Christos Papoutsis, a Communication entitled *'European Capital Markets for SMEs: prospects and possible obstacles to the progress'*. This Communication constituted a continuation of the Commission's efforts to stimulate the creation and development of such markets in the EU.

In addition, a more global reflection on barriers to the development of European risk capital markets is currently going on and should be presented at the European Council of Cardiff in June 1998. Some of its main objectives are to:

- \* Explore the potential barriers to the listing of SMEs on capital markets.
- \* Start a Europe-wide debate on the appropriate conditions for access to equity finance.
- \* Describe and draw attention to the progress made by various initiatives in the European Union, such as EASDAQ, Euro NM and AIM (c.f. section 3.5).
- \* Outline the actions the Commission is currently taking, and intends to take in the future, to overcome the barriers of the development of SME-oriented capital markets and ensure their smooth operation.

## ***2.2 What is Venture Capital?***

Venture Capital or private equity is defined as *form of share capital provided by firms of full-time professionals, who invest alongside management in young, rapidly growing or changing privately owned companies which have the potential to develop into significant businesses in regional, European and global markets'*. Since Venture Capital provides equity (share) capital to enterprises not quoted on a stock market, it is also referred to as private equity or unquoted investment.

The terms private equity and venture capital cover a wide spectrum of types of investments in unquoted companies. These range from the core capital for the launch, early development, expansion or restructuring of a business to acquisitions, the development of new products or technologies, the expansion of working capital or simply the reduction of an established

company's debt. Venture Capital may also offer solutions to ownership issues, successions in family-owned companies, or the buy-out or buy-in of a business by experienced managers.

An important note to remember is that Venture Capital funding is not Grant Funding, and that there is a difference between a Commercial bank and a Venture capitalist.

- \* Banks will only put money in to a business when there is enough equity to give security and a potential income stream to amortise the debt.
- \* Banks will usually not want to be involved in the management of the Company.
- \* The Venture Capitalist is prepared to accept a much higher level of risk exposure and looks for a primary return by way of capital growth.
- \* Venture Capitalists may also opt to play a more active role in terms of management – particularly if they feel that their investment could be at risk.
- \* The SME must also recognise that it is surrendering to the Venture Capitalist, share capital and the legal and ownership implications of this act.

### **2.2.1 Accessing Venture Capital Finance**

The following were noted as key elements in seeking Venture Capital:

- \* A good management team that has a wide range of skills and understands fully the technology. Certain crucial services may be subcontracted.
- \* Have a clear vision and mission statement.
- \* Avoid 'mail-outs' to a broad spectrum of Venture Capitalists.
- \* Elaborate on the possible outcomes of the technology and identify the marketable elements rather than the research effort put in.
- \* Check that the technology has a clear market focus.
- \* Remember that for the Venture Capitalist the most important objective is a marketable product and not R & D.
- \* Produce a first class Business Plan incorporating:
  - the Product
  - the Market
  - financial projections
  - management team
  - track record.
- \* Be aware of weaknesses in the technology and be ready for searching questions at the presentation.
- \* Give reasons for any gap in the business plan and have identified possible solutions.

- \* Remember that Venture Capitalists are essentially entrepreneurs and not research directors.
- \* Maintain continual contact with the Venture Capitalist approached and probe feedback.
- \* Try to use Venture Capitalists in your own national Member State before approaching those in another country.

These elements are normally combined in the following sequence of action:

1. After carefully selecting one or two Venture Capitalists, establish contact with them and then send a comprehensive and professional business plan covering the key elements outlined above.
2. The plan is then distributed within the Venture Capital firm and the project discussed (normally within two weeks of receiving the business plan).
3. If, following the first meeting, the project is of interest, one person from the Venture Capitalists is assigned the dossier and continues to examine the business plan. The SME management team must seek to answer any queries promptly. This stage is known as the 'warming up session' within the industry.
4. The team member, who is responsible for the dossier of the company looking for finance, gives a short presentation to their colleagues. Feedback is given on a document of up to 10-20 pages.
5. A thorough analysis and several negotiations with the management of the company concerned, is the next stage. A third party is also often asked their opinion of the project.
6. The final stage is the 'shooting session' in which the project is presented for the final decision. The company also gives a short presentation of its general profile and the technology or products concerned.
7. Immediately following this meeting there is an internal discussion and a decision is made on the investment.

This process typically takes approximately two months.

Since 1984, DG XIII/D has actively supported the establishment and development of the European Venture Capital Association (EVCA), which currently gathers together more than 350 professional venture capital operators. DG XIII/D represents the European Commission on the board of the EVCA.

### 2.2.2 Finding a Venture Capitalist

Table 2.1 lists firms identified by the Venture Capitalist sector as particularly active investors in biotechnology.

**TABLE 2.1 LIST OF VENTURE CAPITALISTS IDENTIFIED AS HAVING A KEY INVOLVEMENT IN THE BIOTECHNOLOGY SECTOR**

	Name of Venture Capitalist	Particularly good at investing in biotechnology firms	Have a long standing reputation of investing in biotechnology firms
1	3I	✓	

2	Advent Ltd	✓
3	Advent Int	✓
4	Alta Berkley	
5	Atlas Group	✓
6	Danish Development Finance Group (invest mostly in Denmark)	✓
7	Electra	✓
8	Euro Continental	✓
9	Euro Ventures	✓
10	Finovelec - France with US links - Medical Science Partners	✓
11	Sofinnova – France	✓
12	Rothschild – Bioscience – UK	✓
13	Shroeder Ventures	✓
14	GIMV – Flemish	✓
15	TVM - German also in Boston	✓
16	Apax Partners – London	✓
17	Technology Leaders – Wain – US	✓

### ***2.3 Euro Tech and Seed Capital Pilot Action***

In recognition of the difficulty which high technology companies, including biotechnology, have in accessing funds from the financial markets the European Commission has set up two schemes linked into the commercial sector. These are known respectively as EuroTech and Seed Capital Pilot Action

#### **2.3.1 Eurotech Capital**

Eurotech capital is a Venture Capital programme run by DGII of the European Commission, which aims to promote private funding of transnational high technology projects. The scheme operates through a network of 14 private Venture Capital funds. Each fund has an investment capacity of at least 50 million ECU, of which at least 20% is allocated to companies involved in transnational high-technology projects. In return, the funds receive a financial contribution from the Commission (4%). Funding priority is given to SMEs seeking development finance, providing they have a transnational project.

<b>Name of Action</b>	EUROTECH Capital
<b>Run by:</b>	DGII Financial Operations Service



**Contact:** Joël Berger – European Co-ordinator, Luxembourg  
**Tel:** +352 4301- 36 246  
**Fax:** +352 4301- 36 439

### 2.3.2 Seed Capital

The European Commission implemented the seed capital pilot action in order to stimulate the supply of equity capital to innovative business projects, by supporting the creation of 23 specialised investment funds. These funds are independent entities, under private law, and responsible for their own investment decisions.

At the end of 1997, the 23 funds have invested 41,9 MECU in 346 new companies. Out of the 346 firms created since 1989, 267 are still in business (77%). The 267 firms still in business have created 2.382 permanent jobs. 8 of the 23 funds are specialised to make investments in the biotechnology sector. A list of the participating funds, as well as a last advanced report of the activities of the funds, can be obtained from:

**Name of the Action:** SEED CAPITAL  
**Run by** DG XXIII  
**Contact** Unit C.2  
**Fax** 00 32-2-295.21.54

### 2.4 Innovation and Technology Equity Capital (I-TEC)

Innovation and Technology Equity Capital (I-TEC) is a new pilot scheme launched on 1 July 1997 in cooperation with the European Investment Fund. It is open to Venture Capitalists active in the EU and the Associated States that are aiming to make early stage high-tech investment. The I-TEC network today gathers 13 venture capital operators (expanding), which have collectively committed to invest more than 250 MECU in such projects.

The I-TEC contribution per selected Venture Capital fund is as follows:

up to 50% of the costs related to initial appraisal and hands on management of investment

the total I-TEC contribution per venture capital fund will not exceed 5% of the investments effectively made with a maximum of ECU 500,000

I-TEC contributions will be made available after actual investments have been made.

I-TEC benefits are open to Venture Capitalists who:

have organised a fund raising effort

have submitted an Investment Proposal to the EIF and have received a Letter of Intent from the EIF

undertake to invest at least 25% of the new capital raised in early stage investment in technologically innovative SMEs.

For further information and to obtain an updated list of I-TEC participants, please contact:

**Name** Mr Marc Verlinden  
**Address** European Commission, DGXIII D/4  
 The Innovation Programme  
 Rue Alcide de Gasperi  
 L-2950 Luxembourg  
**Tel** + 352 4301 341 94  
**Fax** + 352 4301 345 44

or alternatively:

**Name** Mr Sieglinde Daetens  
**Address** EVEA  
**Tel** + 322 715 00 29  
**Fax** + 322 725 07 04

## ***2.5 Stock Markets***

Historically, the traditional European stock exchanges have been more geared to the needs of larger 'blue chip' companies than those of smaller firms. During the 1980s there were initiatives for 'second tier' stock markets oriented more towards smaller firms. However, on the whole, these developments were not very successful, partly because of the stock market difficulties of 1987. As a result many promising European companies chose to be listed on US stock markets such as NASDAQ.

Nevertheless, the London Stock Exchange has now changed its rules permitting biotechnology SMEs to be entered on its main list as long as they meet one of the following requirements:

- \* Able to attract funds from investors.
- \* Intend to raise £10 million at the time of listing.
- \* Have a capitalisation of at least £20 million.
- \* State that they are developing an identified product to a marketable stage which will generate funds and that this is their primary reason for listing to raise funds to meet this end.

In addition, companies engaged in drug R&D must have two clinical trials regulated by a recognised international authority, signed collaborative agreements with other companies, proof that expenditure for R&D will exceed £20 million over a minimum of three years and that significant intellectual property has been created.

Additionally, three more tools have recently been created to contribute to the development of SMEs. Their aim is to develop and operate a well-regulated, pan-European stock market, which is liquid, efficient and fair, where fast-growing companies with international aspirations can raise capital from investors.

### 2.5.1 EASDAQ

In 1994, the European Commission (DG XII and DG ~~XX~~) supported the creation of the EASD (European Association of Security Dealers), an association of 75 bankers and venture capital operators from across the European Union and the US. This organisation then went on to initiate the EASDAQ (European Association of Security Dealers Automated Quotations). Based in Brussels it is independent of the existing European stock markets and is authorised by the Belgium Banking and Finance Commission. EASDAQ is permitted to operate its trading system in all Member States. Members and intermediaries are required to have approval of their home states' regulatory authority. Being an independently managed market, it is dedicated to serving the interests of growth companies and their investors.

EASDAQ has been closely modelled on NASDAQ, allowing companies a dual listing on both systems. All companies must comply with the information requirements of the Securities and Exchange Commission (SEC) in the US. The obligations and roles of its members and sponsors are explained in the EASDAQ document titled 'Membership of EASDAQ'.

For more information contact:

**Name:** EASDAQ  
**Address:** Rue des Colonies / Kilonienstraat 56 Box 15  
**Tel:** +32 2 227 6520  
**Fax:** +32 2 227 6567

### 2.5.2 EURO NM

Euro NM is designed to be a decentralised, pan-European stock market. It was created by the Brussels Stock Exchange, the Neuer Markt of Deutsch Börse AG, Le Nouveau Marché of Paris, and the New Market of the Amsterdam Stock Exchange, to strengthen the European dimension of their own national systems. It works to harmonise the rules and regulations and listing procedures of the national markets ensuring a degree of co-ordination whilst recognising subsidiarity.

It is in charge of setting up and promoting a network of regulated markets across Europe for fast growing companies. It is dedicated to innovative, high-growth companies and SMEs in general, and seeks to address the problem of difficulties in raising capital.

Contacts for more information on Euro NM are:

#### PARIS

**Contact Name:** Dominique Leblanc  
**Tel:** +33 1 49 27 15 57  
**Contact Name:** Yannick Petit  
**Tel:** +33 1 49 27 15 06

#### BRUSSELS

**Contact Name:** Dominique Valschaerts

**Tel:** +32 2 509 13 40

**Contact Name:** Anne Vleminckx

**Tel:** +32 2 509 13 88

#### **FRANKFURT**

**Contact Name:** Günter Femers

**Tel:** +49 69 21 01 34 70

**Contact Name:** Rainer Riess

**Tel:** +49 69 21 01 34 70

#### **AMSTERDAM**

**Contact Name:** Paul Arlman

**Tel:** +31 20 550 40 04

#### **2.5.3 The Alternative Investment Market (AIM)**

The AIM in London is another public equity option for European SMEs in the area of biotechnology. Those SMEs which are new businesses and can not meet the requirements for the LSE, have a more realistic chance of access to capital markets through AIM. Regulations are less strict with potential entrants needing to:

- \* Provide a prospectus.
- \* Meet audit requirements laid out in company law.
- \* Maintain obligations of publication of un-audited interim figures and directors' dealings.

#### **2.6 The European Investment Fund**

The European Investment Fund (EIF) is an agency partnership between the European Investment Bank, the European Commission, private and public banking sectors.

EIF's task is to support the development of trans-European networks of small and medium-sized enterprises, by providing loan guarantees and venture capital. EIF does not invest directly in individual companies but will provide funds for intermediary venture capitalists in the Member States. In doing so, the EIF pursues two objectives, i.e. to contribute to the development of European SMEs with a high growth and employment potential, and to add value to the equity interventions of private sector financial institutions on the venture capital market.

One common feature among national venture capital markets is that they all experience a relatively large funding gap in the early development stage as well as in technology investments. However, a number of venture capital companies are currently in the process of fund raising for investment vehicles which have a focus in this area. In this context, the arrival of the EIF on the equity market for SMEs sends a positive signal to the financial institutions and private investors

that are considering to "venture" into venture capital.

The EIF is authorised to commit Ecu 75 million of its own funds between 1996 to 1998 to equity participations. The key principles of its investment policy are to ensure that an experienced team of professional venture capital managers is in place, to invest only in funds that are of a sufficient size and to seek financial performance from its investments. The EIF will take minority stakes, on average 10 to 15%, in intermediate structures with a clear definition of their investment and exit strategies. Most participations will normally represent between Ecu 1 and 3 million.

In addition, the EIF collaborates with the European Commission on the implementation of I-TEC pilot projects. The EIF acts as an adviser to the Commission when identifying suitable venture capital funds specialising in early stage investment in high technology

projects. In turn, I-TEC pilot projects will help reinforce venture capital markets in which the EIF operates by:

Providing extra support for smaller venture capital fund managers to help them raise new and bigger funds.

Giving extra confidence to private and institutional investors who are investing for the first time in these funds

As a part of the European Investment Bank's Amsterdam Special Action Programme (ASAP), the EIB gave the mandate to the EIF to manage its Ecu 125 million "European Technology Fund" (ETF) Facility. This aims at improving the innovativeness and thus the competitiveness of eligible SMEs across the Union by facilitating investments in specialist venture capital funds which support the creation and development of high growth, technology oriented SMEs. This ETF facility will be managed by the EIF in a similar way to its own venture capital operations.

Finally, in early 1998 the Commission tabled a proposal for a Council decision on the Growth and Employment initiative to improve access to finance for SMEs to aid their investment activities. This initiative comprises a risk capital facility – "ETF Start-up", which will be managed by the EIF who shall select, make and manage investments in relevant specialised venture capital funds. The facility will reinforce the venture capital operations of EIF by targeting a segment of the venture capital market with a higher inherent investment risk, notably SMEs at establishment and early stages. Again, the EIF will not invest directly in individual companies but will provide funds to intermediary venture capital funds in the Member States. Smaller or newly established funds, funds operating regionally or funds focused on a specific sector such as information and communication technologies, health care and biotechnology or venture capital funds linked to research centres and science parks, will in turn provide risk capital for SMEs. A figure of Ecu 150-190 million is envisaged for this scheme over the period 1998-2000. It is expected that the Council of Member States, which must decide unanimously, will not adopt this proposal until mid 1998.

Direct applications to the Fund are welcome from venture capital promoters. In order to consider an investment opportunity, the EIF needs a detailed business plan or placing memorandum describing, *inter alia*, the size and characteristics of the proposed or existing venture capital fund, the management team and their track record, the legal structure, the investment and exit strategies and the involvement of other investors.

**Name**

European Investment Fund

**Address** 43, Avenue J.F. Kennedy, L-2968  
Luxembourg

**Tel** + 352 42 6688/1

**Fax** +352 42 6688 200

**2.7 The European Investment Bank**

The European Investment Bank (EIB) is an independent public institution of the European Union established to finance capital investments on a non-profit-making basis to promote the balanced development of the Community.

The main aim of the European Investment Bank (EIB) is to reduce inequalities between regions in the European Union to ensure economic and social cohesion of all Member States. It is a non-profit, autonomous institution within the European Union which borrows from the capital markets both within and outside the Community for the bulk of its resources. Tied into Community priorities, the EIB provides loans which can be used in association with national or Community grant aid. As part of this function it will support activities of SMEs.

In the framework of global loans, credits to SMEs can cover up to 50% of costs for any given project, and credit is granted in tranches of between ECU 20,000 and 12.5 million. Commercial projects last between 4-12 years. All projects must be both economically and technically viable.

For most SMEs, access to EIB finance will be through global loans which the Bank will make available via intermediaries. These intermediaries are banks, financial institutions or any financially sound agency which is able to conduct investment appraisal. Intermediaries can work at a national or regional level or be sector specific.

As a part of the European Investment Bank's Amsterdam Special Action Programme (ASAP), it introduced the possibility of risk-sharing global loans benefiting SMEs, in which the Bank takes part of the risk that is usually taken fully by the intermediary institution. In addition, the ETF (European Technology Facility), which is also part of the ASAP, also supports SMEs, as this fund invests in venture capital funds throughout the Community.

Contact:

**Name** European Investment Bank

**Address** 100 blvd Konrad Adenauer  
2950 Luxembourg

**Tel** + 352 43 791

**Fax** + 352 43 77 04

**2.8 Improved Access to Finance for SME's under the Third Multi-annual Programme for SMEs**

The Third Multi-annual Programme for SMEs forms part of the Integrated Programme for SMEs which was adopted by the European Commission on 10 July 1996. The Integrated Programme

provides the framework for a wide range of measures that aim to improve the financial environment for SMEs, including the exchange of best practice between Member States and the strengthening of Community actions in this field.

One of the main focuses of the Third Multi-annual Programme is the elimination of constraints and the improvement of access to funding by SMEs. Sponsorship is given to Loan Guarantee Schemes and to Mutual Guarantee Societies (MGS).

In an MGS several enterprises club together with the aim of providing mutual guarantees and thus better access to credit. It allows for the appraisal of risk by companies with

direct experience in the relevant sector, spreads the risk among more parties, reinforces the negotiating power of the members and favours an effective allocation of public subsidies.

The scheme is more widespread in some parts of the European Union than others and the Commission, and in particular DGXXII, actively encourages the promotion, development and expansion of MGSs in the EU. It works closely, therefore, with the European Mutual Guarantee Association.

For more information contact:

Name                **DG XXIII**

Address            Rudy Aernoudt

                          European Commission, DG XXIII.C.2

                          Rue de la Loi 200 (AN80 1/9)

                          B-1049 Brussels

Tel                    32-2-295.91.86

Fax                    32-2-295.21.54

e-mail                **Rudy.aernoudt@dg23.cec.be**

Name                **European Mutual Guarantee Association (AEGM)**

Address            Sagasta, 15 7°

                          E-28004 Madrid

Tel                    341 445 14 00

Fax                    341 448 92 89

***2.9 Exchange of Experience and Dissemination of Best Practice in Innovation Financing***

**The FIT Project** - Each Member State has measures to support innovation financing. However, young innovative enterprises do not receive all the attention they deserve at the European level. Thus, this action aims to boost transnational information exchanges, in particular in the field of best practices for innovation financing. It does this by organising systematic exchanges of good practice in the financing of innovation between Member States' policy makers and market

operators. Three subjects will be covered in workshops and dissemination activities in 1998 and 1999; guarantee mechanisms, technology rating and internal investors.

In addition, in order to increase the awareness of the importance of accessing innovation finance, the Commission is organising exchanges of experience and the dissemination of best practice. These exchanges take the form of sectoral workshops (biotechnology, information technology and advanced materials) or in a more general format (Innovation Programmes, a Round Table on Innovation, the creation of businesses and employment – Paris, December 1997 / Luxembourg, May 1998 / November 1998.

They also involve the creation of experimental networks of national operators (e.g. a network for technology rating bringing together innovation agencies and investors in four countries; networks for the establishment of a seed capital fund for the exploitation of microsystems or for the photovoltaic industries; networks for the spin-out and spin-off from research institutes and universities etc.).

Moreover, the Commission, under its measures to promote performance benchmarking in the Union, has launched a pilot project in the field of innovation financing.

For further information, please contact:

<b>Name</b>	Mr. Marc Verlinden
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### ***2.10 Measures under Discussion - Business Angels***

Business Angels are often referred to as *informal capitalists* and were pioneered in the UK by the National Westminster Bank. Essentially, the Bank lists individuals with capital who have expressed wish to be involved in new ventures. These investors are matched against investment 'needs' and the Bank acts as the intermediary.

A similar model is also operating in Sweden, the Netherlands and Finland. The Commission recognises the potential importance of a European register of 'Business Angels' for raising funding for SMEs. It is currently investigating the practicalities of setting up such a system.

For more information contact:

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### **The Lift Project**

Set up under the Innovation Programme, the LIFT (Links to Innovation Financing for Technology) project aims to bring together investors and promoters of technology projects, in particular those deriving from Community research. In its exploitation phase (from mid-1998), LIFT will make available to users a central Help Desk and a decentralised network based on existing bodies and accessible to researchers businessmen and investors. The help desk is to be operational by 1999.

### ***2.11 The Growth and Employment Initiative***

Following an initiative by the European Parliament, the Commission in January 1998 tabled a proposal for a Council decision aiming at the improvement of access to finance for innovative SMEs to support their investment activity, and thereby, stimulating the creation of employment. The Ecu 420 million initiative consists of three complementary facilities aimed at covering a broad range of needs, allowing the largest possible number of SMEs to be reached:

\* ETF Start-up – a risk capital facility, managed by the European Investment Fund (see Section 2.6)

\* Joint European Venture (JEV) – the provision of financial contributions for the establishment of transnational joint ventures between SMEs in the EU. The scheme will be accessible to SMEs through a network of banks in all the member states. The scheme will allow a maximum contribution of Ecu 100,000 per project to cover part (50%) of the expenditure incurred in the conception and the setting up of a cross-border joint venture and an aid (10%) on investment.

\* SME Guarantee Facility, a guarantee scheme managed by the EIF, to increase the availability of loans to small or newly established firms, to be distributed through risk sharing with national guarantee schemes and mutual guarantee schemes. For SME guarantees in general, and for this facility in particular, the EIF delegates responsibility for the approval and administration of individual loans to intermediary financial institutions in the Member States. These institutions carry out financial evaluations of the investments according to their own credit procedures. This facility shall target SMEs with growth potential and will mainly be available to cover lending to SMEs with less than 100 employees.

It is expected that the decision on the proposal will be adopted by the Council of Member States, which must decide unanimously, by mid 1998. The JEV programme is already operative since the beginning of 1998 through a Commission Decision

## **SECTION 3. NATIONAL PROGRAMMES**

### **3.1 Introduction and Purpose**

Section 3 provides a guide for SMEs to national programmes aimed at assisting them in the biotechnology sector. As with the European programmes, much of this assistance is in the form of funding but there are also important elements covering partnerships, dissemination and exchange of information, technology transfer and training.

This section contains many programmes and thus the provision of detailed explanations is precluded. Therefore, in each case responsible organisations, contact names and numbers are given so that the user can gain for themselves full details of specific schemes. Users may also wish to refer to their National Trade Association for assistance or advice.

Depending upon the amount of information available for the specific Member State, each section has the following format:

- .1 - Brief Background to the Industry
- .2 - Current Actions and Programmes
- .3 - Programmes at a glance
- .4 - Support Organisations/Contacts

### **3.2 Austria**

#### **3.2.1 A Brief Background to the Industry**

Traditionally the Austrian industry is strong in fermentation with several well recognised microbiology and biochemistry research institutes. Many multi-national companies have been attracted to Austria, most of who are in the pharmaceutical sector. Biotechnology is considered a priority, although R&D spending has been relatively low at 1.3% of GNP. The recognised obstacle for biotech development is that there is limited risk capital.

In 1995, Austria had 40 firms active in biotechnology, 10 of which were in the health care/pharmaceutical sector.

Public biotechnology R&D is based in more than 15 university research institutes and four non-university research institutes.

#### **3.2.2 Current Actions and Programmes**

There are a number of projects currently running and these cover the following areas: yeast cell biology, plant molecular biology, biomembranes, cell differentiation, iron channels, allergies, lipoproteins in health and disease, genetic modifications of cells and animals, cell communication, microvascular injury and repair.

The organisations which are supporting the projects to the sum of ECU 15m include:

- \* The Ministry for Science and Research
- \* The Ministry of Agriculture and Forestry
- \* The Ministry of the Environment, Nationalised Industries and Transport
- \* The Ministry of Health and Consumer Protection
- \* The Austrian Science Foundation - this foundation on its own, provided ECU 5m per year.

About 40% of the R&D in Austria is funded from government ministries or direct funding programmes. The breakdown of public research is roughly 54% for health aspects, 27% on biomass and renewable raw materials and 27% on agricultural topics. From companies there has been equal support for both health and agricultural applications.

Two funds of particular relevance to SMEs in the Biotechnology Sector are:

- \* The Austrian Science Fund - (FWF)
- \* The Industrial Research Promotion Fund - (FFF).

Austrian Science Fund (FWF) was set up in 1967 and its main objective is the promotion of basic research in Austria. The research and funding responsibilities are as follows:

- \* Funding of precisely defined research projects by individual applicants or groups of applicants from all scientific areas, with the basic proviso that they enhance further development in such areas.
- \* Funding of young scientists and scholars.
- \* Stimulation of European research co-operations.
- \* PR work in the service of scientific research and helping to ensure appropriate dissemination and exploitation of the results of research projects
- \* Involvement in research and technology consultancy within Austria.

Industrial Research Promotion Fund (FFF) is a sister organisation to the FWF and deals particularly with applied research and development. It provides an objective evaluation of each project's chances of success, co-operates with know how transfer agencies and helps in the search for joint research ventures. FFF also offers young researchers many interesting programmes.

The FFF has also been commissioned to manage the Innovation and Technology Fund (ITF) with respect to projects involving a large element of research and development. Projects involving technology transfer and technology diffusion are mainly supported through this fund.

The FFF pursues the following objectives:

- \* The promotion and financing of industrial research and innovation.
- \* The implementation of the Austrian government's technology policy.
- \* The stimulation of joint national and international research.
- \* The promotion of research in sectors where little research is carried out.
- \* The promotion of technology transfer and diffusion (through ITF).

### 3.2.3 Programmes at a Glance

**Programme:** **General Programme**

**Sponsor:** The Industrial Research Promotion Fund

**Scope:** This programme is open for all industrial research and development projects by companies, research working groups, research institutes and individual researchers. The precondition for support from the fund is technical quality and risk, and strong evidence that the results of the project can be exploited commercially. 80% of this programme is utilised by small and medium-sized enterprises.

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 Fax: + 43 1 512 45 84 41  
 Email: [mailbox@fff.telecom.at](mailto:mailbox@fff.telecom.at)

**Programme:** **Relay Programme Science - Industry**

**Sponsor:** The Austrian Science Foundation and the Industrial Research Promotion Fund

**Scope:** Basic scientific research in Austria is supported by the above two foundations. FFF has developed a programme in which companies are involved in projects as "observers" right from the basic research stage. As in a relay race, the projects are taken over by companies as they approach the marketing stage, when they are supported by FFF.

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 Fax: + 43 1 512 45 84 41  
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**Programme:** **Young Researchers Programme**

**Sponsor:** The Industrial Research Promotion Fund

**Scope:** This programme sets out to support the involvement of young researchers in joint projects with companies. The objective behind the programme is to increase co-operation between science and industry. This is a very popular programme with SMEs in that they can develop their own research and development facilities. It also enables many young researchers to find jobs in the field of industrial research.

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 Fax: + 43 1 512 45 84 41  
 Email: [mailbox@fff.telecom.at](mailto:mailbox@fff.telecom.at)

**Programme:** **Timber Research Programme**

**Sponsor:** The Industrial Research Promotion Fund

**Scope:** The timber industry in Austria is too strongly orientated towards raw materials. With this programme the FFF aims to encourage research and development projects and joint ventures in a sector where there is still inadequate research.

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**Programme:**                    **Domestic Water Research Programme**

**Sponsor:**                    The Industrial Research Promotion Fund

**Scope:**                    The environment programme is carried out in collaboration with the Ministry for the Environment, the main aim is to encourage better management of water resources. From 1997 onwards one of the main points of emphasis will be the problem of eliminating nitrates and sulphates from the water of old large-scale sewage farms.

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 Fax: + 43 1 512 45 84 41  
 Email: [mailbox@fff.telecom.at](mailto:mailbox@fff.telecom.at)

**Programme:**                    **Technology Transfer Programme**

**Sponsor:**                    The Industrial Research Promotion Fund

**Scope:**                    The FFF is the main co-ordinator of the Innovation and Technology Transfer Programme in Austria. Support is given to either companies or agencies for technology transfer projects

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 Fax: + 43 1 512 45 84 41  
 E mail: [mailbox@fff.telecom.at](mailto:mailbox@fff.telecom.at)

The Austrian Science Fund (FWF), grants research projects that are clearly defined and of limited duration in the following categories:

- \* Individual Projects
- \* Joint Research Projects
- \* Special Research Programs
- \* Contact Projects Science-Industry
- \* Fellowship Programs
- \* Contributions to Publishing Costs
- \* Programs involving the Funding of Individual Researchers

**Programme:**                    **Individual Projects**

**Sponsor:**                    The Austrian Science Fund (FWF)

**Scope:** Individual projects are defined as a research project of up to 36 months duration. This tends to be the most popular category under which proposals are submitted to the FWF. In 1996 the FWF approved 382 individual projects. The validity of an individual research project to be granted is assessed on the basis of the significance of the research project for the development of the sciences in Austria.

**Contact:** Prof. Schmidt Austrian Science Fund Tel: + 43 1 505 67 40  
Mrs Glueck Tel: + 43 1 505 67 23

**Programme: Joint Research Programmes (FSP) and Special Research Programmes (SFB)**

**Sponsor:** The Austrian Science Fund (FWF)

**Scope:** The above two programmes are aimed at projects of a particularly high standard and of medium - to long term duration. Referees from the international scientific community judge the merits of a proposed FSB or SFB based on scientific criteria. Upon completion of the review process the FWF decides upon funding at an annual meeting. After a period of 2-4 years, those projects awarded funding under FSP and SFB are evaluated again by a group of independent international experts.

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Mrs Glueck Tel: + 43 1 505 67 23

**Programme: Graduate Programme**

**Sponsor:** The Austrian Science Fund (FWF)

**Scope:** This programme was designed to promote centres of scientific research in a particular field of inquiry. Special emphasis is placed on promoting highly qualified graduate students by establishing close contacts with experienced, active and internationally renowned scientists as well as by integrating them into ongoing research work. The programme is designed specifically to train promising researchers at a few selected research facilities. The FWF board devotes one annual meeting to the establishment of new trainees. Interim evaluations are conducted at regular intervals. No time limits are set for the trainees and this programme can also run in parallel to other FWF projects or programmes.

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Mrs Glueck Tel: + 43 1 505 67 23

**Programme Fellowship Programme**

**Sponsor:** The Austrian Science Fund (FWF)

**Scope:** The FWF promotes young post-graduates within the context of three programmes:

1. *Drwin Schrödinger Fellowships*: These offer highly qualified Austrian citizen (up to the age of 35), the opportunity of working in leading foreign research institutions and research programmes.
2. *Lise Meitner Fellowships*: These offer well-qualified foreign students (up to the age of 35), the opportunity to carry out research in Austria.
3. *Charlotte Bühler Habilitation Fellowships*: This is a targeted research campaign aimed at the rising generation of female university lecturers and encourages young female scientists (up to the age of 40) to seek qualification as university lecturers.

**Contact:** Prof. Schmidt Austrian Science Fund Tel: + 43 1 505 67 40  
 Mrs Glueck Tel: + 43 1 505 67 23

**Programme:** **Contact Projects Science – Industry**

**Sponsor:** The Austrian Science Fund (FWF)

**Scope:** In 1995 the FWF introduced a new type of grant in collaboration with the Industrial Research Promotion Fund (FFF), and was aimed at economically relevant basic research. Virtually all the FWF funding categories can be considered with a view to becoming Contact Projects. Contact Projects require interested companies to pay a so-called "observer fee" per annum. In return the company receives regular information on the progress of the project. If a Contact Project Science - Industry scheme is successful, the company may submit a follow up project to the Industrial Research Promotion Fund.

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 Mrs Glueck Tel: + 43 1 505 67 23

**Programme:** **Programmes for Funding of Outstanding Researchers**

**Sponsor:** The Austrian Science Fund (FWF)

**Scope:** The FWF in collaboration with the Federal Ministry of Science announced two programmes in 1995 aimed at the funding of individual researchers. These include the START Programme and the Wittgenstein Award. The decisions for such programmes are made by an international jury.

\* *START*: This programme aims to provide very highly qualified young scientists from all disciplines, the opportunity of planning their research work. It enables such students to set up their own working group on a long term basis and with a broad degree of financial security.

\* *Wittgenstein*: The Wittgenstein Award is intended to guarantee a maximum of freedom and flexibility to researchers from all disciplines who are undertaking cutting-edge research in order to facilitate further exceptional progress in their work.

**Contact:** Prof. Schmidt Austrian Science Fund Tel: + 43 1 505 67 40  
 Mrs Glueck Tel: + 43 1 505 67 23

**Programme:** **ERDF Programmes**

**Sponsor:** The European Community Finance is being provided by the European Regional Development Fund (ERDF) and the European Social Fund (ESF), and this Community finance will contribute a quarter of total expenditure under the programme.

**Scope:** The European Commission has approved an operational programme under the SME Community Initiative for Austria. The overall aim of the programme is to strengthen the competitiveness of Austrian SMEs in Objective 1,2 and 5b regions and in particular:

- to encourage SMEs to take a long term perspective and engage in strategic planning
- to promote the use of advanced telematics in SMEs
- to facilitate the adoption of cleaner, more energy efficient production technologies in SMEs

To achieve these objectives, resources will be made available for the following types of actions:

- information campaigns to increase awareness of SMEs
- provision of expert advice to SMEs on strategic planning, on the use of advanced telematics and on clean and energy-efficient production technologies
- pilot and demonstration projects (for example setting up of telecottages)
- development of long distance training courses
- the provision of training support for the introduction of new technologies (environmental technologies and telematics applications in SMEs)

This programme forms part of the implementation of the Community's SMEs initiative.

<b>Contact:</b>	Mr Markus Beclin	The Ministry of Economic Development	Tel: + 43 222 71100/2213 Fax: + 43 222 71100/5403
	Mr Georg Panholzer	The Ministry of Economic Development	Tel: + 43 222 711000/2213 Fax: + 43 222 71100/5403

**Programme:** **Viennese Innovation and Technology Subsidy**

**Sponsor:** Viennese Economic Advancement Fund (VEAF)

**Scope:** This programme caters for:

- ◆ industrial and commercial projects in the area of basic research, which includes all project specific research and development activities, including the construction of pilot and demonstration units.
- ◆ small and medium sized businesses and in particular the economic transfer of research results.
- ◆ projects which are based on the purchase of exploitation rights (licences), as long as definitive further development has already taken place or will at some stage in the future.

30% of the finance available is allocated to SMEs with a maximum of 250 employees and 20% to larger companies for research and development.

15% of the finance available is allocated to SMEs with maximum of 50 employees for economic transfers. The maximum subsidy for economic transfer is ATS 750,000. In principle a maximum of ATS30 million per research and subsidy per year can be granted.

The target area for the fund is Vienna.

<b>Contact:</b>	Wiener Wirtschaftservice Förderungsfonds, 2, Ebendorferstrasse, PO A-1082, Vienna, Austria	Tel: + 43 1 4000
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**Programme:** **Innovation and Technology Grants**

**Sponsor:** WIBAG

**Scope:** The aim of this fund is to support internal regional strength through:

- subsidies for existing businesses.
- support for the establishment of new companies and in particular endogenous new start-ups or expansions.



It is specifically targeting product innovation or process innovation.

The subsidy area for this grant is Burgenland in the East of Austria.

A minimum of 10% financial assistance and a maximum of 20% is available with this fund.

**Contact:** Wirtschaftservice, Burgenland, A.G - WIBAG, Tel: + 43 1 26 82 672 200  
Dom Platz 4, PO - A-7000, Eisenstadt,  
Vienna, Austria Fax: + 43 1 26 82 672 20 20

**Programme:** **Technology Programme for Small and Medium-Sized Enterprises**

**Sponsor:** ERP

**Scope:** The principle aim of this programme is the promotion of investment projects that will improve a small firm's overall level of technology. Examples of such projects supported include:

- ◆ the introduction of new production methods or new products.
- ◆ the essential improvement in production methods or products.
- ◆ Investments leading to a considerable increase in the degree of processing.
- ◆ projects aimed at fundamentally improving areas such as information supply, storage and transport within a company.

Applicants eligible for funding include SMEs in the production industries and service industries closely associated with production with a maximum of 250 employees.

Costs not eligible for grant aid include the purchase of the actual site, second-hand investment materials, costs for redevelopment and finally, costs prior to application.

**Contact:** Penngasse 5, 1010 Vienna, Austria Tel: + 43 1 534 64 40 02  
Fax: + 43 1 534 64 40 15

### 3.2.4 Support Organisations/Contacts

**Name:** **Austrian Society of Biotechnology (ÖGBT)**

**Address:** Kleine Spergasse 1/37, 1030 Wien, Austria

**Telephone:** + 43 1 26 22 42

**Name:** **Austrian Society for Genetics and Genetechnology**

**Address:** c/o Institut für Biotechnologie der Technischen Universität Graz, Petergasse 12, 8010 Graz, Austria

**Telephone:** + 43 316 873 84 18

**Name:** **Innovation Centre**

**Address:** Bureau for International Research and Technology Cooperation (BIT), Wiedner Hauptstrasse 76, A-1040 Wien

**Telephone** + 43 1581 16 16 16  
**Contact:** Mr Manfred Horvat and Dr Helegsha  
**Email:** [Klamm@bit.ac.at](mailto:Klamm@bit.ac.at)

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**Fax:** + 43 1 50 20 62 97  
**e-mail:** [eic@wk.or.at](mailto:eic@wk.or.at)  
**URL:** [www.wk.or.at/ih\\_info/euroinfo/eurohome.htm](http://www.wk.or.at/ih_info/euroinfo/eurohome.htm)  
**Contact:** Mr. Heinz Kogler

**Name:** Euro Info Centre  
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**e-mail:** [christian.mandl@voei.ada.at](mailto:christian.mandl@voei.ada.at)  
**URL:** [www.telecom.at/eic](http://www.telecom.at/eic)  
**Contact:** Mr. Christian Mandl

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**URL:** [www.sbg.wk.or.at/euro/eic.html](http://www.sbg.wk.or.at/euro/eic.html)  
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**URL:** [www.wk.or.at/w3wkoee](http://www.wk.or.at/w3wkoee)  
**Contact:** Mr. Robert Leitner

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**Telephone:** + 43 5 12 53 102 21  
**Fax:** + 43 5 12 53 102 75  
**e-mail:** [aw@tirol.wk.or.at](mailto:aw@tirol.wk.or.at)  
**Contact:** Mr. Peter Völker

**Name:** **Federal Environment Agency**  
**Address:** Umweltbundesamt, 5 Spittelauer Laende, A-1090 Vienna  
**Telephone:** + 43 1 31 30 437 10  
**Fax:** + 43 1 31 30 437 00  
**Contact:** Mr Helmut Gaugitsch  
Mr Wolfgang Mattes  
Mr Manfred Schneider

**Name:** **National Environmental Protection Agency**  
**Telephone:** 00 43 1 71102 389  
**Fax:** 00 43 1 713 93 31

**Contact:** Dr Sabenna Ecker

**Name:** **BIT - The Bureau for International Research and Technology Co-operation**

**Address:** Wiedner Hauptstrasse 76, Postfach 37, A-1042, Vienna,

**Telephone:** + 43 1 5811 616/103

**Fax:** + 43 1 5811 616/16

**Contact:** Dr Sabine Herlitschka

**Name:** **Ministry for Consumer Protection**

**Telephone:** + 43 1 71172 4845

**Fax:** + 43 1 713 79 52

**Contact:** Mr Michael Haas

### ***3.3 Belgium***

#### **3.3.1 A Brief Background to the Industry**

Belgium is a country rich in basic knowledge within the fields of life sciences and technology. Science policy since the 1980s has been progressively decentralised through successive state reform initiatives. The Federal state is particularly active in basic research through the networking of centres of excellence within common projects. Community authorities support academic research and help sustain these centres of excellence. Regional authorities focus on linking the centres with the profit sector through financing more market-orientated research. The total R&D expenditure for Belgium in 1991 was 1.6% of GNP.

In 1991 there were 67 biotechnology companies in the whole of the country, including a number of multi-nationals. The base of the industry lies in biomedical and agro-biotech products. A total of ECU 20m of venture capital was raised in 1994 by biotech and biomedical companies. Flanders has 29 companies while the Walloon region has 38 companies. Industrial R&D expenditure was approx. ECU 32m.

In 1991 Belgium had a total of 220 laboratories and 34 research institutes. The Ministry of Agriculture funds six of the institutes that carry out important research in agro-biotech. The Flemish public biotech R&D, was carried out at seven universities and 8 non-university centres and focused on various areas in biomedical R&D, agro-biotech and genetics. Within the Walloon region, public biotechnology R&D is carried out in nine universities and ten non-universities in total. Two biotechnology R&D centres were set up by the Walloon Region at the University of Liège and at the Agronomical Faculty at Gembloux. As a joint venture between the Walloon Region and the EU, two centres of excellence are being created at the Université Catholique de Louvain at Senefte (CERTECH) and at the Université Libre de Bruxelles (CRB) at Charleroi.

The service entitled Biosafety and Biotechnology (SBB) is the Belgian focal point for the co-ordination of information exchange at the international (EU, OECD), at the federal (Public Health, Agriculture, Worker Protection, Economic Affairs, Internal and Scientific Affairs) and at the regional (Environment) levels in all scientific and advisory matters related to biosafety. The SBB represents the permanent secretariat of the Biosafety Advisory Council and can carry out expertise tasks in respect of regional legislation and the risk assessment of notification associated with Directive 90/220/EEC.

**3. 3.2 Current Actions and Programmes**

Programmes fall into three categories within:

The Federal State

The Flemish Community

The French-speaking Community/Walloon Region.

**Federal State:** The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) currently finances the IPA (Inter-University Poles of Attraction) with ECU 20m per year. 30% of this fund goes to the centres of excellence working in the life sciences area. The OSTC also supports the Belgian Co-ordinated Collections of Micro-organisms (BCCM).

**Flemish Community/Region:** During the 8-year period 1990-1998, Vlaams Actieprogramma Biotechnologie (VAB) is promoting co-operation between basic research institutes, universities and industry. They have a budget of ECU 33m with a further 55m in reserve for technical assessment and socio-economic impact studies. In 1996 the government formed "Vlaams Inter-universitair Instituut voor Biotechnologie" with funding for 5 years initially to stimulate strategic basic research in nine different university departments. This project orientated research, will fund 5-6 smaller research teams for 1996 with a budget of ECU 23m.

The Flemish Institute for the Promotion of Scientific Research in Industry (IWT) was established in 1991 and in 1995 it was allocated ECU 5.7m to promote the stimulation of pre-competitive and prototype R&D in the Flemish biotech and pharmaceutical industry, especially SMEs. A Biotech Venture Capital fund to stimulate the formation of spin-off companies, was also set up with an annual BEF 200 million (ECU 5m).

The Department of Education finances the centres of excellence through Concerted Actions and is also in charge of distributing the funds of the former National Fund for Scientific Research within Flanders.

**French-Speaking Community/Walloon Region:** Concerted actions and funds of the Fonds national pour la Recherche Scientifique (FNRS) help to finance the centres of excellence in life sciences and technologies. The aim is to reinforce and promote industry, investing in biotechnology R&D and focusing on SMEs and the centres of excellence. During the period from 1990-1995, ECU 44m was provided to companies and ECU 24m to universities.

**3.3.3 Programmes at a Glance - The Federal State**

**Programme:** Inter-university Poles of Attraction - Phase IV



The promotion of spin-off companies is a very important part of this programme and an annual ECU 5 million venture capital fund, called the BIOTECH Fund is on reserve to this end. Funds are distributed via the Flemish Department of Education.

**Contact:** Ms Christine Claus IWT Tel: + 32 2 223 00 33  
Bischoffsheimlaan 25 Fax: + 32 2 223 11 81  
B-1000 Brussels  
Belgium

**Programme:** **EAGGF - Mark/Processing Biological Products**

**Sponsor:** Ministry of the Flemish Community

**Scope:** This programme is aimed at enterprises within the Flemish Region in the marketing and commercialisation of bio-products for:

- the expansion and optimisation of marketing structures for bio-products, control and labeling
- the creation of companies or plants for the processing of bio-products.
- Co-financing by the EAGGF of up to 15% of the eligible investment outside the objective 5B areas.

Eligible expenditure:

- building/acquisition of buildings
- new plant and equipment, including computer hardware and software
- overheads up to 12% of the costs mentioned under points 1 and 2 above.

**Contact:** Agricultural and Horticultural Department of the Flemish Community

**Programme:** **ERDF Programme No 94.10.10.014**

**Sponsor:** Ministerie van de Vlaamse Gemeenschap

**Scope:** The European Commission has approved an operational programme under the SME Community Initiative to promote economic development both in Limburgh and Kempen, affected by industrial decline and in Meetjesland and Westhoek-Middenkust, areas characterised by low economic development and an important fishery or agricultural sector.

The aim of the programme is to support the adaptation of SMEs to the single market by promoting technological innovation, it is hoped that SMEs will increase their competitiveness, and thereby promote job creation in the region.

The Community part-financing will amount to 31.10% of the total investment, the remainder being provided by national and regional authorities, and from private sources.

The main schemes covered by this programme are:

- sensitisation/awareness measures
- the support and implementation of innovative projects
- networking
- technical assistance.

**Contact:** Ministerie van de Vlaamse Gemeenschap, Administratie Economie Tel: + 32 2 507 38 64  
 Markiesstraat 1 Fax: + 32 2 502 47 02  
 B-1000 Brussels

### The Walloon Community/Region

**Programme:** **Subvention Entreprise - Research Programme**

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** This programme is aimed at companies intending to sub-contract their market research to universities or research institutes.

This programme is co-financed by the European Commission and an SME can obtain between 50-70% funding if their application is successful.

**Contact:** Mr Marc Debruxelles DGTRE Tel: + 32 (0) 81 32 16 50  
 Avenue Prince de Liege 7 Fax: + 32 (0) 81 32 66 00  
 1 ere Etage  
 5100 Jambes (Namur)

**Programme:** **R&D Programme - Environmental Technologies**

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** This programme concentrates on assisting those companies interested in developing their level of technology for commercialisation reasons or in order to resolve environmental problems. Themes quoted under this scheme include: Prevention, Recycling, Treatment, Control.

Once an application is accepted, between 50-70% of the finance for the research required is available

**Contact:** Mr Marc Debruxelles DGTRE Tel: + 32 (0) 81 32 16 50  
 Avenue Prince de Liege 7 Fax: + 32 (0) 81 32 66 00  
 1 ere Etage  
 5100 Jambes (Namur)

**Programme:** **"First-Entreprise"**

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** The First Enterprise Programme encourages and supports collaboration between industry and universities. It is aimed at firms who are looking at strengthening their science and technology base through employing students from a

- Research Unit within a University



- Research Unit associated with a Superior Industrial Institute
- A Research Centre.

It is intended that such a traineeship would involve a significant transfers of knowledge.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
    Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
    1 ere Etage  
    5100 Jambes (Namur)

**Programme:**                      **Responsible Innovation Technologique - RIT**

**Sponsor:**                      Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:**                      The above programme is focused at Industrial SMEs within the Walloon Region whose main objective is to increase their Human Resources in order that the SME as a result, can develop further Technology Innovation Projects.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
    Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
    1 ere Etage  
    5100 Jambes (Namur)

**Programme:**                      **RIT Europe – Co-opération Technologique entre PME**

**Sponsor:**                      Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:**                      The RIT Europe is aimed at SMEs looking to collaborate on a technology basis with one or more SMEs situated within another Member State. Finance is provided for employing an external consultant to complete an economic study on what SME would be the most appropriate to co-operate with and also the remuneration of one person for a year.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
    Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
    1 ere Etage  
    5100 Jambes (Namur)

**Programme:**                      **Sectorial Studies**

**Sponsor:**                      Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:**                      This scheme focuses on SMEs within the Walloon Region looking to conduct a survey on the position of their company with regard to technology and the advances that have been made pertinent to their sector. This fund finances 80 % of the costs in the hiring of an external consultant to complete such a study and to obtain the results.





1 ere Etage  
5100 Jambes (Namur)

**Programme:** Assiste

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** This is aimed at all SMEs based within the region of Hainaut who have already received an advance loan through the Acquitech Programme and are now looking to establish the technical, commercial and financial standards in order to exploit their research results. 80% of the costs involved are covered by this fund.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
1 ere Etage  
5100 Jambes (Namur)

**Programme:** Assiste II

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** This fund focuses on those SMEs that have been successful in obtaining funding from Assiste I and are hoping to take the results of their research one step further and complete the market research, find an appropriate partner and further evaluate the design of the product concerned and advance towards proceeding with intellectual property rights.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
1 ere Etage  
5100 Jambes (Namur)

**Programme:** Stimule

**Sponsor:** Direction Générale des Technologies, de la Recherche et de l'Energie, Division des Aides aux entreprises – DGTRE

**Scope:** Under this scheme SMEs based within the Hainaut region and who have obtained a loan under the Acquitech or Assiste schemes can repay just 50% of the finance received in the first year following the research study.

**Contact:** Mr Marc Debruxelles                      DGTRE                      Tel: + 32 (0) 81 32 16 50  
Avenue Prince de Liege 7                      Fax: + 32 (0) 81 32 66 00  
1 ere Etage  
5100 Jambes (Namur)



**Sponsor:** Bureau Economique de la Province de Namur

**Scope::** The purpose of this scheme is to share the costs borne by companies for starting-up and expanding their activities within the technological centres located in the Province of Namur. Technological centres are granted an annual lump-sum which they must redistribute to companies through a reduction in the costs of using the centres and/or their equipment. Incentives will be granted for a maximum duration of 1 year. Support may be extended for an additional year if the company demonstrates its obvious involvement in the development of the innovation.

The set of measures implemented by the Province of Namur to foster technological development of the Province include:

- environmental technology
- information technology

**Sponsor:** Economic Development Office of Namur

### 3.3.4 Support Organisations/Contacts

**NOTE : For a complete listing of Euro Info Centres, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** Euro Info Centre (Antennede BE - 010 Liège)

**Address:** Stellenvermittlungsam, Arbeitsbeschaffung-Form, Borngasse, 3-5, B-4700

**Telephone:** +32 87 74 21 80

**Fax:** +32 87 55 70 85

**Contact:** Mlle Brigitte Fijalkowski

**Name:** Euro Info Centre (Antienne de BE011 - Mons)

**Address:** Chambre de Commerce et d'Industrie du Tournaisis, Rue Beyaert, 75, B-7500

**Telephone:** +32 69 22 11 21

**Fax:** +32 69 21 27 84

**Contact:** Mlle Isabelle Walscap

**Name:** Euro Info Centre

**Address:** Kamer van Koophandel en Nijverheid van Antwerpen, Markgravestraat, 12, B-2000 Antwerpen.

**Telephone:** +32 3 23 22 219

**Fax:** + 32 3 2336 442

**Contact:** Mr. Luc Luwel

**Name:** Euro Info Centre  
**Address:** Chambre de Commerce et d'Industrie de Bruxelles/Fabrimetal, Avenue Louise, 500, B-1050 Bruxelles.  
**Telephone:** + 32 2 64 85 873  
**Fax:** + 32 2 64 09 328  
**Contact:** M. Luc De Wolf  
**Email** [ccibrussels@cci.be](mailto:ccibrussels@cci.be)

**Name:** Euro Info Centre  
**Address:** Euroguichet Hainaut-Est, Avenue General Michel,1E, B-6000 Charleroi.  
**Telephone:** + 32 7 13 31 460  
**Fax:** +32 7 13 16 735  
**Contact:** M. Philippe Chèvremont  
**Email** [heracles@heracles.charline.be](mailto:heracles@heracles.charline.be)

**Name:** Euro Info Centre van de Vlaamse GMO's  
**Address:** Seminariestraat, 2, B-9000 Gent.  
**Telephone:** +32 9 26 78 630  
**Fax:** + 32 9 26 78 696  
**Contact:** Mr. Johan Declerck  
**Email** [eic@gomov.be](mailto:eic@gomov.be)

**Name:** SPI. Euro Info Centre  
**Address:** Rue Lonhienne, 14, B-4000 Liège.  
**Telephone:** +32 4 22 01 111  
**Fax:** +32 4 33 01 120  
**Contact:** Mme. Monique Rover  
**Email** [ipcm@mail.interpac.be](mailto:ipcm@mail.interpac.be)

**Name:** Euro Info Centre Hainaut  
**Address:** Site du Grand Hornu, Rue St. Louise,82, B-7301 Hornu (Mons).  
**Telephone:** +32 6 57 77 970

**Fax:** + 32 6 57 79 091

**Contact:** M. Thierry Maton

**Name:** **Euro Info Centre Brussels Airport**

**Address:** Kamer voor Handel en Nijcerheid, Halle-Vilvoorde, Brucargo Gebouw 706, Lokaal 7614, B-1931 Zaventem.

**Telephone:** +32 2 75 19 056

**Fax:** + 32 2 75 17 811

**Contact:** Mr Tom Van Den Elzen

**Email** [ccihv@cci.be](mailto:ccihv@cci.be)

**Name:** **Belgian Bio-industry Association**

**Address:** Rue de Crayer 6, 1050-Bruxelles

**Telephone:** + 32 2 656 83 00

**Fax:** + 32 2 656 81 45

**Contact:** Mr Pierre Crooy

**Name:** **Service of Biosafety and Biotechnology (SBB)**

**Address:** Institute of Public Health (IPH), Rue Juliette Wytmanstraat 14, B-1050 Brussels, Belgium

**Telephone:** + 32 2 642 52 93

**Fax:** + 322 642 52 92

**Web Page:** <http://biosafety.ihe.be>

**Email:** [helpsbb@sbb.ihe.be](mailto:helpsbb@sbb.ihe.be)

**Contact:** Mr William Moens

Mr Didier Breyer

email:[wmoens@sbb.ihe.be](mailto:wmoens@sbb.ihe.be)

email:[dbreyer@sbb.ihe.be](mailto:dbreyer@sbb.ihe.be)

#### **Federal State**

**Name:** **Ministry of Social Affairs, Public Health and the Environment**

**Address:** Quartier Vésale Esplanade, Fourth Floor, B-1210, Brussels

**Telephone:** + 32 2 210 48 93

**Fax:** + 32 2 210 48 80



**Name:** **Ministère des Classes Moyennes et de l'Agriculture Inspection Générale des Matières Premières et Produits Transformés**

**Address:** Manhattan Centre, 8<sup>th</sup>Floor, Avenue du Boulevard 21, B-1210, Brussels

**Telephone:** + 32 2 208 32 11

**Fax:** + 32 2 208 38 66

**Name:** **Belgian Federal Office for Scientific, Technical and Cultural Affairs (O.S.T.C.)**

**Address:** Rue de la Science 8, B-1000, Brussels

**Telephone:** + 32 2 238 34 11

**Fax:** + 32 2 230 59 12

**Web Site:** <http://www.belspo.be>

**Contact:** Jacques Wautrequin - Secretary General

**Name:** **Bpdrachthouder, Federale Diensten voor Wetenschappelijke Technische en Culturele Aangelegenheden**

**Address:** Wetenschapstraat 8, B-1040, Brussels

**Telephone:** + 32 2 238 35 20

**Fax:** + 32 2 230 59 12

**Contact:** Mm Heer J D Brabandere

#### Region of Brussels - Capital

**Name:** **Institut Bruxellois pour la Gestion de l'Environnement (IBGE)**

**Address:** Gulledele 100, B-1200, Brussels

**Telephone:** + 32 2 775 75 38

**Fax:** + 32 2 775 77 72

**Name:** **Guichet Entreprises-Environnement**

**Address:** Société de Développement Régional de Bruxelles, Rue Gabrielle Petit 6, B-1200, Brussels

**Telephone:** + 32 2 422 52 00

#### Walloon Region

**Name:** **Direction Générale des Ressources Naturelles et de l'Environnement (DGRNE)**

**Address:** Avenue Prince de Liege 15, B-5100 Jambes

**Telephone:** + 32 81 32 57 68

**Fax:** + 32 81 32 59 82

**Name:** **Ministere Wallon de la Recherche, du Développement Technologie, des Sports et des Relations Internationales**

**Address:** Direction de la Recherche, Avenue Prince de Liege, 2, 5100 Namur

**Telephone:** + 32 81 32 16 87

**Fax:** + 32 81 30 66 00

**Contact:** Mr Alain Moreau - Secteur Biotechnologies      Mr P Villers - Director

**Name:** **Direction Generale Des Technologies, de la Recherche et de L'Energie**

**Address:** Avenue Prince de Liege 7, 5100 Jambes

**Telephone:** + 32 81 32 12 11

**Fax:** + 32 81 30 66 00

**Contact:** Mr A M Straus - Director General

**Name:** **Cabinet du Ministre de la Politique Scientifique**

**Address:** Rue de la Loi 66, 1040 Brussels

**Telephone:** + 32 2 238 28 11

**Fax:** + 32 2 230 38 62

**Contact:** Mr Hassan Jijakli

**Name:** **Cabinet du Ministre de l'Agriculture**

**Address:** Rue Marie-Thérese 1, 1040 Brussels

**Telephone:** + 32 2 211 06 11

**Fax:** + 32 2 219 61 30

**Contact:** Mr Pinxten

#### **Flemish Region**

**Name:** **Vlaames Instituut voor Biotechnologie - (VIB)**

**Address:** Rijnvisschestraat 118, 9052 Gent

**Telephone:** + 32 9 244 66 11

**Fax:** + 32 9 244 66 10

**Contact:** Mr Jo Bury - Director Mr Rudy Dekeyser

**Name:** Vlaams Instituut voor de Bevordering van het Wetenschappelijk

**Address:** Bischoffsheimlaan 25, B-1000, Brussels

**Telephone:** + 32 2 223 00 33

**Fax:** + 32 2 223 11 81

**Contact:** Ms Christine Claus

**Name:** Administratie Milieu - Natur-, Land-en Waterbeheer (Animal)

**Address:** Belliardstraat 14-18, B-1040 Brussels, Belgium

**Telephone:** + 32 2 550 20 19

**Fax:** + 32 2 550 20 15

### ***3.4 Denmark***

#### **3.4.1 A Brief Background to the Industry**

The Biotechnology sector in Denmark is small but particularly strong in enzyme and yeast technology (dairy and brewing) and insulin production. Biotechnology is considered a priority research area and both public and private biotech R&D have improved significantly over the past ten years. A strategy for national research (including biotechnology) is being compiled by the Ministry of Research and Information and biotechnology will be of special interest.

Denmark collaborates actively with Sweden in the framework of a joint Danish-Swedish biotech centre based in the Copenhagen and Malmö-Lund areas. ECU 11,697.90 per year has been given to support projects in the following areas: cellular communication, DNA-RNA structure and function, plant biology and ecology. New initiatives planned from 1998 will include:

biotechnology in medical research, including genetic research.

a Research Council for Technical Sciences to support various activities.

a Research Council for Agricultural Sciences to support animal and plant science.

a Research Council for Natural Sciences to support biomolecular structures and molecular recognition.

a Danish Foundation for Basic Research to cover bioinformatics and plant biology.

Denmark has 55 companies active in the biotechnology sector, half of which are SMEs. 3,130

people are currently employed. The main areas that these companies specialise in cover chemicals, diagnostics, pharmaceutical and food. Danish biotech and biomedical companies raised approximately ECU 5million of venture capital in 1994.

The Technical University of Denmark and the University of Copenhagen have chosen Biotechnology as one of their focus areas alongside many other universities in Denmark. The Biotechnological Institute and the Genetic Engineering Group are two non-profit making research institutes in the private sector, and have just recently merged. The Bioraf Denmark Foundation runs the Whole Crop Bio-refinery Project. There are a number of research centres and associations of researchers which lie at the centre of the biotech programme for Denmark and come under the Ministry of Food, Agriculture and Fisheries, The Ministry of the Environment and Energy and the Ministry of Health.

### 3.4.2 Current Actions and Programmes

The Third National R&D programme was launched in 1996 with funds of ECU 10m. A total of ECU 6.9m is to be allocated to research centres, whereas ECU3.6 million is to be allocated to new centres in open competition.

Future programmes are to become more focused and will specialise on a particular sector or infrastructure within Biotechnology.

The Ministry of Research launched a special programme to give risk-taking younger scientists opportunities within the THOR Programme, which focuses on highly specialised research, and provides funding of ECU 11.4m for 4 years. 25% of the supported projects are expected to be within Biotechnology.

The Food Technology Programme (FOTEK) has an estimated share of Biotechnology funds of approximately ECU2.1 million per year.

### 3.4.3 Programmes at a Glance

<b>Programme:</b>	<b>Strategic Research Programmes</b>	
<b>Sponsor:</b>	The National Danish Research Foundation	
<b>Scope:</b>	This Institute spends approximately ECU11.4 million a year on biotechnology related projects. The focus from 1997 onwards includes plant biology and bio-informatics.	
<b>Contact:</b>	Lisbeth Hede	Tel:+45 33 92 97 00
	Bredgade 43	Fax:+45 33 32 35 01
	DK-1260 Kobenhavn	Email: <a href="mailto:pg@forskraad.dk">pg@forskraad.dk</a>
	Denmark	
<b>Programme:</b>	<b>THOR</b>	
<b>Sponsor:</b>	The Ministry of Research and Information Technology	
<b>Scope:</b>	This scheme is aimed at young scientists and encourages specialised research in a number of areas. It	

is to run from 1997 to the year 2000 and will provide ECU11.4 million in the form of funding.

**Contact:** The Research Councils Tel:+45 33 92 97 00

**Programme:** **FOTEK 2**

**Sponsor:** **The Danish Research and Development Programme**

**Scope:** This programme was started in 1990 and a total of DK525 million has been set aside for the programme by the Ministries of Agriculture and Fisheries, Business and Industry and Education.

The main goal of the FOTEK Programme is to strengthen the position of the of the Danish food industry on the international market. The programme subsidises a limited number of large basic research as well as framework programmes, commercially-oriented collaborative projects and various other activities.

FOTEK 2 focuses on 5 specific areas covering:

- Health and nutrition
- Quality
- New uses for food
- Environmentally sound production methods
- Consumer preferences and behaviour

This programme has no fixed duration but was reviewed in late 1997 with a view to adjusting the future course.

**Contact:** Charlotte Kolln Tel:+45 33 92 97 00

**Programme:** **Centre Contracts**

**Sponsor:** "Erhvervsfremming Styrelsen" - The Danish Agency for Development of Industry and Trade

**Scope:** Centre Contracts are relatively long-term co-operative research and development projects between three parties: enterprises, authorised technological service institutes and research institutes. The co-operation secures the direct transfer of knowledge and skills between the participating organisations and helps to create dialogue between the business community and the technological service and research institutions. Grants are not made to individual enterprises. The scheme was initiated in 1995 to improve public/private interplay. The budget allocated for 1997 totaled approximately ECU1.7million.

**Contact:** Danish Agency for Trade and Industry, Tel:+ 45 43 50 40 00  
Tagensvej, DK-2200 Copenhagen N

**Programme:** **Biotechnology Programmes**

**Sponsor:** The Research Councils

**Scope:** The areas of priority for the Danish Research Councils and the total amount of funding they are eligible for are highlighted below:

- Molecular and Cell Gerontology - 1996-1999 (ECU 2 million)
- Genetics and proteomics - 1998-2002 (ECU 27.8 million)

- Xenoestrogens and Reproduction - (ECU 2.8 million)
- Bioresearch (glycochem & biology) - ECU 7 million)
- Bioinformatics - 1998-2000 (ECU 1.5 million)

**Contact:** Mr Per Gronborg Tel:+45 33 92 97 00  
 Bredgade 43 Fax:+45 33 32 35 01  
 DK-1260 Kobenhavn email:[pg@forskraad.dk](mailto:pg@forskraad.dk)  
 Denmark

**Programme:** **Erhvervs - Forsker - Danish Industrial PhD Fellowship Programme**

**Sponsor:** The Danish Agency for the Development of Trade and Industry

**Scope:** This programme provides grants that permit private enterprises to employ Ph.D students to undertake research and development projects in co-operation with research institutes.

**Contact:** Ms Birgitte Rolf Jacobsen Tel: + 45 45 88 13 11

**Programme:** **BIOTEK 2**

**Sponsor:** Research Councils

**Scope:** This scheme will run until the end of 1999 and it is intended to 'strengthen the Institute's economic ability to finance biotechnological research'. 70 million DKR is allocated per year for this purpose.

**Contact:** M Lisbeth Hede Tel: + 45 33 92 97 00  
 Bredgade 43 Fax: + 45 33 32 35 01  
 DK-1260 Kobenhavn Email: [pg@forskraad.dk](mailto:pg@forskraad.dk)  
 Denmark

**Programme:** **ERDF Programme**

**Sponsor:** The European Commission + National Authorities

**Scope:** The European Commission has approved an operational programme under the SME Community Initiative to promote economic development in areas suffering high unemployment and low income due to structural changes in the industrial and agricultural sectors.

The aim of the programme is to support the development and success of SMEs, especially by improving their innovation rate and the general entrepreneurial climate. It is hoped that by supporting SMEs, economic growth will be generated, exports increased and jobs created in the region.

This programme will extend an already established national programme called the Ticketcard Scheme for Entrepreneurs. This scheme targets those entrepreneurs who have recently set up a business in a Danish Objective 2 or 5B region, and who have received education and developed a business strategy with the help of the national Ticketcard scheme. The extended EU-Ticketcard will allow extra efforts to be put into continuing guidance and support for the newly established businesses. This programme is expected to improve the survival rate of SMEs, improve their competence and create jobs. The other scheme covered by this programme is titled Technical

Assistance.

The Community finances 50% of the total investment, the remainder being provided by national authorities.

**Contact:** Niels Bjerning Hansen Tel: + 45 87 20 40 60  
Erhvervsfremme Styrelsen Fax: + 45 87 20 40 77  
Sondergade 25  
DK-8600 Silkeborg

**3.4.4 Support Organisations/Contacts**

**Name:** The Association of Biotechnological Industries in Denmark (FBID) - Copenhagen  
**Telephone:** + 45 44 44 88 88 Ext 2240/2303  
**Fax:** + 45 44 44 42 82/98 36 22

**Name:** Danish Environmental Protection Agency  
**Address:** Strandgade 29, DK-1401 Copenhagen  
**Telephone:** + 45 32 66 01 00  
**Fax:** + 45 32 66 04 79  
**Contact:** Ms Rie Lorentzen

**Name:** Danish Research Councils - FIRST  
**Address:** Bredgade 43, DK-1260, Kobenhavn K  
**Telephone:** + 45 33 92 97 00  
**Fax:** + 45 33 32 35 01  
**Email:** [puf@fsk.dk](mailto:puf@fsk.dk)  
**Contact:** Lisbeth Mortensen

**Name:** Odense University  
**Address:** Odense Universitet, Campusvej 55, DK-5230 Odense M  
**Telephone:** + 45 66 15 86 00  
**Fax:** + 45 65 93 27 81  
**Contact:** Prof Peter Roepstorff

**Name:** University of Copenhagen

**Address:** Proteinlab, Panum Institut Bldg 6, Belgdamsvej 3, DK-2200 Kobenhavn Cph  
**Telephone:** + 45 35 32 73 37  
**Fax:** + 45 31 35 18 95  
**Email:** [bono@biobase.dk](mailto:bono@biobase.dk)  
**Contact:** Dr Bodil Norrild

**Name:** **Erhvervsfremme Styrelsen - Euro Centre**  
**Address:** Gregersensvej, Postbox 141, Taastrup, DK-2630  
**Telephone:** + 45 43 50 40 00  
**Fax:** + 45 43 71 63 60  
**Email:** [euro@dti.dk](mailto:euro@dti.dk)  
**Contact:** Ms Inger Petersen

**NOTE: For a complete listing of Euro Info Centres, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** **Euro Info Centre**  
**Address:** Danish Technological Institute, Gregersensvej, Postbox 141, DG-2630 Kobenhavn-Tastrup  
**Telephone:** + 45 43 50 40 00  
**Fax:** + 45 43 71 63 60  
**Email:** [euro@dti.dk](mailto:euro@dti.dk)  
**Contact:** Mr Nils Thyssen

**Name:** **The Danish Ministry of Food, Agriculture and Fisheries**  
**Address:** Holbergsgade 2, 1057 Copenhagen K, Denmark  
**Telephone:** +45 33 92 33 01  
**Fax:** +45 33 14 50 42

**Name:** **Institute of Biotechnology**  
**Address:** Kogle Allé2, 2970 Horsholm, Denmark  
**Telephone:** +45 45 16 04 44  
**Fax:** +45 45 16 04 55



### 3.5 Finland

#### 3.5.1 A Brief Background to the Industry

The strongest biotechnology area for Finland is enzyme technology which has built on its well-established fermentation technology and microbiological base. Finland also has a strong public research base and various science parks and biocentres have been set up around the universities. The R&D expenditure was 2.7% of GNP in 1997.

The number of companies active in biotechnology in Finland is between 60-70, many being situated in science parks. The science parks have been established with public funding and host public and private research units and companies. The SMEs favour pharmaceuticals and diagnostic test systems. Biotechnology relevant matters are handled by the Finnish Bioindustries under the auspices of the Chemical Industry Federation, Helsinki.

Six universities have strong research departments. Biomedicine is catching up with biotechnology and molecular biology as a research topic. In 1995 there were over 200 academic research groups and 19 biotech graduate school programmes founded. Four centres of excellence related to biotech and molecular and cell biology are also being given support.

#### 3.5.2 Current Actions and Programmes

Project funding, allocated on the basis of free competition, plus national programmes, has promoted biotech throughout the public sector. The Technology Development Centre at the Ministry of Trade and Industry (TEKES) has run several programmes, investing approximately ECU 5-15 m per year in 1992-1997. In 1994 the Academy of Finland launched the Genome Research Programme to run until 2000. This programme will have ECU 7m invested in 20 research projects during the first three years. The Academy is organising an international evaluation of biotech and molecular biology in Finland, and the European Molecular Biology Organisation (EMBO) has agreed to be involved in the evaluation.

#### 3.5.3 Programmes at a Glance

<b>Programme:</b>	<b>New Generation Food Technology</b>		
<b>Sponsor</b>	Technology Development Centre (TEKES)		
<b>Scope:</b>	The programme area covers new food processes, logistics, process control and automation as well as aspects concerning food products and health.		
<b>Funding:</b>	ECU 20 million		
<b>Contact:</b>	Dr Mervi Sibakov	TEKES PO Box 69 00101 Helsinki	Tel: +358 10 521 5823  Fax: +358 10 521 5905

#### **Programme: Malting and Brewing Technology Programme**

**Scope:** The industry is running its own technology programme in co-operation with researchers at VTT Biotechnology and Food Research, VTT Automation and the Institute of Biotechnology of the



**Address:** Research Council for Natural Sciences and Engineering, PO Box 99, 00510 Helsinki, Finland  
**Telephone:** + 358 9 7748 8233  
**Fax:** + 358 9 7748 8393  
**Email** [Eeva.Ikonen@aka.fi](mailto:Eeva.Ikonen@aka.fi)  
**Contact:** Eeva Ikonen

**Name:** **Finnish Bioindustries c/o Chemical Industry Federation**  
**Address:** Etelaranta 10, PO Box 4, 00131 Helsinki  
**Telephone:** + 358 9 1728 4314  
**Fax:** + 358 9 630 225  
**Email** [Hannele.kuusi@kennia.ttlutot.fi](mailto:Hannele.kuusi@kennia.ttlutot.fi)  
**Contact** Hannele Kuussi

**NOTE : For a complete listing of Euro Info Centres, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** **Euro Info Centre, The Finnish Foreign Trade Association**  
**Address:** Arkadiankatu, 2, PO Box 908, FIN-00101 Helsinki  
**Telephone:** 358 9 1992  
**Fax:** 358 204 695 535  
**Email** [info@exports.finland.fi](mailto:info@exports.finland.fi)  
**Contact:** Mr Taisto Sulonen

**Name:** **Euro Info Centre North Finland, Ministry of Trade and Industry**  
**Address:** Regional Busienss Service Office in Oulu, Asemakatu, 37, FIN-90100 Oulu  
**Telephone:** 358 8 316 02 20  
**Fax:** 358 8 316 02 21  
**Email** [riitta.heikkinen@oyt.oulu.fi](mailto:riitta.heikkinen@oyt.oulu.fi)  
**Contact:** Ms Riitta Heikkinen

**Name:** **Euro Info Centre TEKES, Technology Development Centre**  
**Address:** Malminkatu, 34, PO Box 69, FIN-00101, Helsinki  
**Telephone:** 358 10 521 57 24

**Fax:** 358 10 521 59 08  
**Email:** [Marita.paasi@tekes.fi](mailto:Marita.paasi@tekes.fi)  
**Contact:** Ms Marita Paasi

### **3.6 France**

#### **3.6.1 A Brief Background to the Industry**

The government has traditionally encouraged co-operation between public and private research and, most importantly, promotes research into products of economic value. Since 1982, networks between the regions have been set up, called Centres for Innovation and Technology Transfer (CRITTS). CRITTS have an education and training function as well as being geared specifically to biological problems and technology transfer. The total R&D expenditure by France's biotechnology sector in the early 1990s was 2.7% of GNP.

Approximately 100 dedicated biotechnology companies are based in France. 700 companies are involved in biotech-related activities, with biotech R&D concentrated in the major companies. It is estimated that since 1992 industrial spending has totalled ECU 400m annually.

Large national centres and institutes have been responsible for most of the public research. Universities are gradually becoming more important.

#### **3.6.2 Current Actions and Programmes**

The current BioAvenir Programme (1992-1997) is essentially a public-private co-operation between the government and Rhône Poulenc, a major French company. In total ECU 230million funding is provided by both. The main focus of the programme involves research on biological processes, medical research and agricultural research.

In 1995 a new strategy was introduced, which was to set up 14 scientific committees responsible for carrying out projects in 14 strategic programmes in the life sciences. Each programme was divided into seven priority areas to cover genetics, developmental biology, structural biology, environmental sciences and physiopathological mechanisms. Two horizontal programmes on bioinformatics and biotechnology were also introduced. Total funding for 1996 and 1997 totalled ECU 31m.

In addition, in 1996 the government placed biotechnology among its research priorities and announced public funding of approximately ECU 23m for 1997. A further ECU 230 million was spread over the next 5 years. These funds are additional to regular funding for public research agencies. These funds are to be supplemented by private finance of approximately ECU 76.2 million from the newly created Fonds Commun Placement pour Innovation. Moreover, a fiscal incentive is available as a 25% tax break on the total amount invested in new technologies including biotechnology. The French Research Ministry estimates that of the current 305 government funded biotech research projects, 18 could form the basis of new companies.

### 3.6.3 Programmes at a Glance

**Programme:** Technological Acquisition

**Sponsor:** Conseil Régional de Bretagne

**Scope:** This programme is aimed at encouraging the purchase of patents and licences within the Region of Brittany. The licence or attestation must correspond to a biotechnological process deemed interesting within the framework of the Britta Programme.

**Contact:** Monsieur Jean-Luc Grosbois  
 Conseil Regional de Bretagne-  
 Innovation  
 D.DE-Sevice de l'innovation  
 283 Avenue du Général Patton  
 35031 Rennes Cedex  
 Tel: + 33 2 99 27 10 10  
 Fax:+ 33 2 99 27 11 11

**Programme:** Industrial Research

**Sponsor:** Conseil Régional de Bretagne

**Scope:** The aim of this scheme is to support financially innovative industrial projects within Brittany in the fields of: food industry biotechnologies (BRITTA) and telecommunications and data processing.

**Contact:** Monsieur Jean-Luc Grosbois  
 Conseil Regional de Bretagne-  
 Innovation  
 D.DE-Sevice de l'innovation  
 283 Avenue du Général Patton  
 35031 Rennes Cedex  
 Tel: + 33 2 99 27 10 10  
 Fax:+ 33 2 99 27 11 11

**Programme:** Support for the Transfer of Technology

**Sponsor:** Agence Nationale de la Valorisation de la Recherche

**Scope:** This support programme for the transfer of technology is open to any research and innovation organisation independent of their size and activity sector in the whole of France. The programme finances up to 50% of expenditure on:

- market surveys
- technical feasibility
- realisation of models
- partner searching
- costs of industrial property
- acquisition cost
- studies and assistance
- cost of technological implementation

**Contact:** Francois Le Bihan                      Joël Durif                      André Rocca

ANVAR Pays de Loire	ANVAR Rhone-Alpes	ANVAR Haute Normandie
2 Rue Cornouaille	DRIRE	65 Rue Orbe
44000 Nantes	15 Rue des Colibris 38030	76000 Rouen
Tel: + 33 2 40 93 97 98	Grenoble Cedex 02	Tel: + 33 2 35 71 14 71
Fax:+ 33 2 40 93 83 09	Tel:+ 33 4 76 69 34 41	Fax: + 33 2 35 98 45 82

**Programme: FRAT - Transfer of Technology**

**Sponsor:** The Department of Industry and Regional Development

**Scope:** The purpose of this scheme is to link public or private research laboratories to companies in order to improve the quality of their products and the efficiency of their production tools. The procedure is managed by the regional organisations within the eligible areas: Alsace, Aquitaine, Bretagne, Centre Ile de France, Languedoc-Roussillon, Midi Pyrénées, Nord-Pas de Calais, Picardie, Provence-Alpes-Côtes-d'Azur.

Up to 50% of total eligible expenditures are covered including: general laboratory costs, essays, prototypes, and applied research.

<b>Contact:</b>	DRIRE Rhône-Alpes	DRIRE Basse-Normandie	DRIRE Nord-Pas-de-Calais
	146 rue Pierre Corneille	Résidence Hélicas	941 Rue Charles Bourseul, BP 838
	69426 Lyon Cedex 03	27 Rue Saint-Ouen	559508 Douai Cedex
	Tel:+ 33 1 4 78 61 52 00	14039 Caen Cedex	Tel:+ 33 3 27 93 22 22
		Tel:+ 33 2 31 74 64 51	

**Programme: APTE - Aid for European Technological Partnership**

**Sponsor:** Agence Nationale de Valorisation de la Recherche

**Scope:** The aim of this scheme is to assist enterprises looking for European partners in research and development projects and project preparation. Support can take place in two stages:

1. Stage 1: involves looking for a European partner.
2. Stage 2: involves finalising and presentation of the Eureka project.

Partners can be chosen from any EU Member State along with Iceland, Norway, Switzerland or Turkey.

Up to 75% of the expenditure involved is covered by the scheme. Within Stage 1 these could involve external consultancy expenditures involved by the applicant. Stage 2 costs are the same as those above, but may also comprise the costs of French or foreign juridical consultancy services.

<b>Contact:</b>	Robert Csukai	Jean Francois Lafaye	Patrick Parayre
	ANVAR Picardie	ANVAR Lorraine	ANVAR Bourgogne
	18 Rue Cormont	Technopole de Nancy-Brabois	12 Rue Jean Renaud
	8000 Amiens	1 allée de Saint-Cloud	21000 Dijon
	Tel: + 33 3 22 91 84 67	54603 Villers-Les-Nancy Cedex	Tel: + 33 3 80 30 71 50
	Fax:+ 33 3 22 92 05 47	Tel: + 33 2 99 38 45 45	Fax:+ 33 3 80 30 23 02

**Programme: Support for Innovation and Technology Transfer**

**Sponsor:** Conseil Régional d'Ile-de-France

**Scope:** The purpose of this scheme is to allow SMEs in the Ile de France region to reduce their outside laboratory costs for developing innovative projects.

The scheme can be preceded by a feasibility study utilising an external consultant, of which 50% of the total cost will be covered, and 75% for companies of less than 1 years existence.

**Contact:** Mm Crousier                      Conseil Regional D'Ile-De-France      Tel: + 33 1 53 85 53 85  
33 Rue Barbet de Jouy                      Fax: + 33 1 53 85 53 89  
75007 Paris

**Programme: Secondment of a Researcher by the CEA or INSERM**

**Sponsor:** Conseil Régional d'Ile-de-France

**Scope:** The purpose of this scheme is to encourage research in advanced techniques within the Ile-de-France Region by the secondment of a researcher from the CEA or INSERM, to an SME with a research or innovative programme.

**Contact:** Mm Crousier                      Conseil Regional D'Ile-De-France      Tel: + 33 1 53 85 53 85  
33 Rue Barbet de Jouy                      Fax:+ 33 1 53 85 53 89  
75007 Paris

**Programme: Research and Transfer of Technology**

**Sponsor:** Conseil Régional de Bourgogne

**Scope:** The aim of this programme is to promote technology transfer of research within public laboratories and regional companies within the area of Bourgogne. The fund will finance up to 50% of the research costs.

**Contact:** Mme Losserand                      Conseil Regional de Bourgogne      Tel: + 33 3 80 44 34 50  
Monsieur Degois                      16 bis, Bd de Brosses                      Fax:+ 33 3 80 44 33 00  
BP 1332  
21032 Dijon Cedex

**Programme: Regional Fund Aid for Technology Transfer**

**Sponsor:** Conseil Régional du Nord-Pas-de Calais

**Scope:** The purpose of this scheme is to provide financial support to SMEs in the Nord-Pas de Calais Region, in order to help them attract the scientific skills and external techniques they require to improve the quality of their products or performance and the competitiveness of their production tool.





**Programme: A Regional Fund for Technology Transfer****Sponsor:** Conseil Régional d'Alsace**Scope:** This programme is aimed at SMEs within the craft industry, agro food stuffs and the industrial service sector within the Alsace region. It promotes the transfer of know-how and technology can finance up to 50% of the expenses involved.**Contact:** Conseil Regional D'Alsace (R&D) Tel: + 33 1 03 88 15 68 67

Mission Recherche de Développement-Economie

35 Avenue de la Paix

BP 1006/F

67070 Strasbourg Cedex

**Programme: Regional Fund for Technology Transfer****Sponsor:** Conseil Régional de Provence-Alpes-Côtes d'Azur**Scope:** This programme supports SMEs within the Provence-Alpes-Côte D'Azur Region that are interested in working with research centres to improve their level of performance. The fund finances between 25-50% of the costs involved.**Contact:** Monsieur Courtial Conseil Regional de Provence Tel: + 33 4 91 57 50 57

Alpes Cote D'Azur

Fax: + 33 4 91 57 51 51

Service des Initiatives  
Economiques

27 Place Jules Guesde

13481 Marseille Cedex 20

**Programme: Regional Assistance for Technology Transfer****Sponsor:** Conseil Regional de Corse**Scope:** The programme aims at supporting SMEs in the elaboration and running of innovative projects on the island of Corsica. Funds available cover 50% of the costs involved.**Contact:** Conseil Regional de la Corse Tel: + 33 4 95 23 77 00

Agence de Développement Economique de la Corse Fax: + 33 4 95 20 56 72

Auartier Saint-Joseph

19 Route de Sartene

20090 Ajaccio

**Programme: Support of Innovative Programmes****Sponsor:** Conseil Général de Haute-Vienne



Tel: + 33 1 40 65 12 34

F-20 179 Ajaccio CEDEX

Fax: + 33 1 43 06 99 01

Tel: + 33 95 29 99 29

Fax: + 33 95 21 32 70

### 3.6.4 Organisations/Contacts

#### **ADEBIO**

**Address:** 28, Rue Saint Dominique, F-75007 Paris, France.

**Telephone:** + 33 1 44 18 95 53

**Fax:** + 33 1 45 50 46 10

**Contact:** Mr. Alain Faure

**Name:** **Organisation Nationale Interprofessionnelle des BioIndustries (ORGANIBIO)**

**Address:** 28 Rue Saint Dominique, F-75007 Paris, France

**Telephone:** + 33 1 47 53 09 12

**Fax:** + 33 1 47 53 73 76

**Contact:** Mr Jean Lunel

**Name:** **Ministère de l'Éducation Nationale et de la Recherche (MENESR)**

**Address:** MST/DSTP 5, 77 Avenue Denfert-Rochereau, F-75014, Paris

**Telephone:** + 33 1 40 51 20 20

**Fax:** + 33 1 40 51 21 06

**Contact:** Prof P Printz

**Name:** **Ministère de l'Agriculture, de la Pêche et de l'Alimentation Sous-dir. Recherche, Innovation et Réglementation**

**Address:** 251, Rue de Margirard, F-75732, Paris Cedex 13

**Telephone:** + 33 1 49 55 58 86

**Fax:** + 33 1 49 55 59 48

**Contact:** M. Eric Schoonejans

**Name:** **Ministère de l'Industrie, des Postes et Télécommunications de du Commerce Extérieur (MIPTCE)**

**Address:** DGSI/SERBCO, 3 Rue Barbet de Jouy, F-75353, Paris

**Telephone:** + 33 1 45 65 39 68  
**Fax:** + 33 1 45 56 30 92  
**Contact:** Mr M Lelong

**NOTE : For a complete listing of Euro Info Centres, please contact DGXXII**

**Fax : + 32 2 295 7335**

**Name:** Euro Info Centre  
**Address:** Ministère de l'Industrie, de la Poste et des Télécommunications, 20 Avenue de Ségur, F-75353, Paris  
**Telephone:** + 33 1 43 19 28 16  
**Fax:** + 33 1 43 19 60 37  
**Contact:** Mr Denis Lagniez

**Name:** Chambre de Commerce et d'Industrie de Paris (BRIST)  
**Address:** 2 Rue de Viarmes, F-75040, Paris Cedex 01  
**Telephone:** + 33 1 45 08 35 39  
**Fax:** + 33 1 45 08 39 79  
**Contact:** Mr Giles Wurmser  
**Email:** [wur@ccip.fr](mailto:wur@ccip.fr)

**Name:** Route des Hautes Technologies (RHT)  
**Address:** Espace Colbert II, 8 Rue Sainte Barbe, F-13231 Marseille Cedex 01  
**Telephone:** + 33 49 11 40 560  
**Fax:** + 33 49 11 40 570  
**Contact:** Mr Christian Dubarry  
**Email:** [rht@rht.cr-paca.fr](mailto:rht@rht.cr-paca.fr)

**Name:** Association Inter-Régionale sur la Recherche Européenne (AIRE)  
**Address:** RN-25 Lieu dit le Ramponneau, F-80260 Poulainville (Amiens)  
**Telephone:** + 33 32 24 37 218  
**Fax:** + 33 32 24 37 202  
**Contact:** Mrs Nathalie Gerard  
**Email:** [cri.aire@pratique.fr](mailto:cri.aire@pratique.fr)

**Name:** French Associate Member Association Nationale de la Recherche Technique Europe (ANRT)

**Address:** 16 Avenue Bugeaud, F-75116 Paris Cedex

**Telephone:** + 33 1 53 70 10 70

**Fax:** + 33 1 47 04 25 20

**Name:** ANVAR (National Agency for the Promotion of Research)

**Address:** 42 Rue Caumartin, F-75436 Paris Cédex 09

**Telephone:** + 33 1 40 17 83 00 / 8549

**Fax:** + 33 1 42 66 02 20

### 3.7 Germany

#### 3.7.1 A Brief Background to the Industry

The chemical and pharmaceutical industries are Germany's strengths. However, with smaller firms lacking finance, larger companies being risk averse and the general public having a hostile attitude, biotechnology has only recently been actively encouraged by the government to capitalise on these strengths. In 1995 the Research Minister organised BioRegio-Wettbewerb. This scheme was a competition between Regions supporting joint projects with industry and research institutes. R&D expenditure for Germany in 1992 was 2.5% of GNP.

The few larger multinationals involved prefer investing in the medical and pharmaceutical sectors, whereas the smaller companies concentrate on agricultural and environmental applications. SMEs have had difficulties in securing Venture Capital for biotechnology, achieving less than 1% (ECU 40m) of total investment in 1994.

In addition to the university institutes, there is a range of publicly funded research centres which cover all areas of basic biotech research.

#### 3.7.2 Current Actions and Programmes

Biotechnology 2000 brings together research centres, university institutes and companies working on projects as a joint effort. Spending on direct funding of research centres and industry in 1996 was ECU 110m. The Research Minister has promised ECU 530m per year from 1996 for biotech related R&D, which includes institutional funds. During 1993-1997, bio-informatics will receive ECU 12m.

#### 3.7.3 Programmes at a Glance

**Programme:** Biotechnology 2000

**Sponsor:** Bundesministerium für Bildung, Wissenschaft (BMBF) - German Ministry for Education, Science, Research and Technology

**Scope:** The purpose of the scheme is to increase the German presence in the biotechnological field. It is intended to allow the potential of biotechnology to be opened up for the economy. It aims to encourage companies, institutes of higher education and R&D establishments to undertake research and development projects in a wide variety of fields. The projects must be associated with a high economic/technical risk and applications should be made before the project begins. Priority will be given to multipurpose research projects.

**Funding** Grants are given to commercial firms for up to 50% of eligible costs. Subject to certain conditions. SMEs and firms in the New Federal States could receive as much as 60%. Eligible costs include R&D expenses, material, personnel, third-party services, travel, depreciation on project-specific equipment. The budget stands at 330 million DM per year.

**Contact:** It is recommended to get in touch with the relevant authorities before official application is made

**Programme: Technology Participation**

**Sponsor:** Kreditanstalt für Wiederaufbau

**Scope:** The scheme runs until the end of December 2000. It aims to support technology-oriented investments by strengthening the equity-capital basis. Innovation projects concentrate on applied research and development up to the stage of commercial production. Other projects are centred on market penetration, and introducing the product to the market. Applicants must have been founded within the past ten years and must have the necessary business administrative and technical know-how. Those firms in the old federal states must have less than 51 employees and a turnover of up to DM 10 million. In the new federal states, less than 251 employees and up to 40 million DM turnover.

**Funding** The budget for this programme is 3 million DM. Applications can be made for capital costs linked to research and development and investment costs linked to market penetration. This incentive may be combined with other public funded programmes and those of the KfW/BMBF. Businesses in the old federal states can apply for up to 75% and those in the new federal states and Berlin (East) may get as much as 85%.

**Contact:** Applications to be made on printed form KfW 141660, Programme No 115 or 116.

**Programme: Technology/Innovation Consultancy (Brandenburg)**

**Sponsor:** Ministerium für Wirtschaft, Mittelstand und Technology

**Scope:** To increase the innovation potential and competitiveness of SMEs, through technical and/or business administrative consultation services aimed at manufacturing technically new products or the application of improved production processes. The firm's registered headquarters as well as business premises should be situated in Brandenburg.

**Funding** A grant for up to 50% of consultation costs can be applied for with a maximum of 20,000DM per business per year. It can not be combined with other public funds.

**Programme: FUTOUR - Technology Oriented Business Start Ups**

**Sponsor:** Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie

**Scope:** This programme should become a secondary incentive of the trial programme 'Technology Oriented Business Start-up in the New Federal States'. The programme is awaiting approval from the EU Commission, however applications will be accepted now. It aims to facilitate the start-up of technology oriented businesses, based on innovative products, production procedures or technical services - feasibility analysis and the conception phase, R&D phase

and after-development phase. The measures must be carried out in the New Federal States or Berlin (East). The programme runs through to the end of 1999. Business founders should own at least 51% of the firm, and scientific and technical institutions should own at least 26% of the firm. Eligible applicants must be less than 3 years in business with up to ten employees.

**Funding** Grants or silent partnerships will form the financial aid. For conception phase of a project, up to 50,000DM or 65% can be obtained, the R&D phase - 300,000DM or 70% and for the after-development phase - up to 500,000DM.

**Programme:** **SME Berlin**

**Sponsor:** DG XVI

**Scope:** This SME initiative for Berlin is to support SMEs in the Land's Objective 1 and 2 regions. It comprises of the following measures: development of quality assurance systems and support for technology transfer, support for environmental and energy management, assistance for moves into international markets, financial support.

**Funding** The Union will contribute 43% to the overall estimated costs from ERDF and ESF. The remaining 57% will be met by national public authorities and private sector backers.

**Contact:** Senatsverwaltung für Wirtschaft und Technologie des Landes Berlin. Referat II C Tel: + 49 30 783-1  
Fax: + 49 30 783 8281  
Martin-Luther Str. 105

D-10825 Berlin

Senatsverwaltung für Arbeit und Frauen des Landes Berlin

Referat VA, Storkower Str 134

D-10407 Berlin

Tel: + 49 30 4214-0

Fax: + 49 30 4214 2090

**Programme:** **SME Sachsen**

**Sponsor:** DG XVI

**Scope:** The European Commission has approved a programme under the SME initiative for the Objective 1 region of the Free State of Sachsen to assist with the adaptation of SMEs throughout the area. It assists SMEs with market access, introduction of new technology, environmental protection and technical assistance.

**Funding:** The union will contribute 43% of total investment of which 87.6% will come from ERDF and 12.4% from ESF.

**Contact:** Sächsisches Staatsministerium für Wirtschaft und Arbeit Tel: + 49 351 564-0, -8046  
Fax: + 49 351 564 8189

Budapester Strasse 5

D-01069 Dresden

**Programme:** **SME Nordrhein-Westfalen**

**Sponsor:** DG XVI

**Scope:** This Programme, covering both Objective 2 and 5b eligible areas in the Region, is designed to assist with the on going adaptation process of the SME sector. The measures are: improvement of management and organisation, support of technology and innovation, measures for improvement of the environment, facilitating access to new markets.

**Funding:** The Union will contribute 25% to the overall estimated costs which will come from the ERDF. It is complementary to vocational training measures under the Objective 2 Single Programming Document and the ADAPT Community Initiative.

**Contact:** Ministerium für Wirtschaft, Mittelstand und  
Technology und Verkehr des Landes Nordrhein-  
Westfalen  
  
Harold Str.  
  
D-40213 Düsseldorf 4

**Programme:** **Venture Capital Technology-Oriented Businesses (Hamburg)**

**Sponsor:** Wirtschaftsbehörde Hamburg

**Scope:** The programme aims to help improve the equity basis of young technology oriented businesses. It contributes to the appraisal costs incurred by the participant in risk evaluation and by helping with management support. It is open to SMEs in the commercial sector with less than 26 employees, a turnover up to 10 million DM and working in technology.

**Funding:** Financial help is given for appraisal costs and personnel costs, up to 70% in the first year, 50% in the second and 30% in the third year. Maximums of 15,000DM for personal appraisal plus 50,000DM for third-party services. For evaluation basis, there is a maximum of 130,000DM pa.

**Contact:** Information is available at the Wirtschaftsbehörde Hamburg, Abt. Strukturförderung.

**Programme:** **TPW Technology Programme Economy**

**Sponsor:** Ministerium für Wirtschaft und Mittelstand, Technology, Nordrhein-Westfalen

**Scope:** The purpose of the scheme is to develop, introduce and disseminate new products and procedures through obtaining new technical solutions, transferring of new products and procedures, developing business related adjustment measures, appropriation of technical know-how. The Programme is open to SME commercial businesses, technology-oriented business start-ups and independent professionals.

**Funding:** Grants are given for between 25,000 - 500,000DM or 20%-50%, depending on measures and size of business, for investment costs and other expenses which arise in relation to solving technical problems.

**Contact:** Before formal application is made, details of the project may be sent for preliminary appraisal to the Zentrum für Innovation und Technik, Dohne 54, 45468 Mülheim/Ruhr.

**Programme:** **Modern Technology**

**Sponsor:** Ministerium für Wirtschaft, Technologie und Verkehr, Schleswig-Holstein

**Scope:** The scheme is aimed at technical projects relating to the environment, energy, communications, information medicine, oceanology and bio-techniques. It encourages modern production techniques, and the development and purchase of technical know-how. Larger firms are also eligible for funding, if the measures in question are of special importance to the firm.



**Funding:** For fundamental research, SMEs can obtain grants of up to 60%, larger firms of up to 50%. For applied research, 30% for SMEs and 25% for larger firms. Grants cover expenses for materials, outside R&D services, personnel, travelling, special plants, special working fund and services. They also cover pilot and demonstration projects.

**Contact:** Applications should be to the Technologi-Transfer-Zentrale, Schleswig-Holstein.

**Programme:** **Technology and Innovation Incentive**

**Sponsor:** Ministerium für Wirtschaft und Angelegenheiten, Mecklenburg-Vorpommern

**Scope:** The programme encourages the development and implementation of new technologies as well as pilot projects related to new technologies, employment of innovation assistants, technology related consultancy as well as the mediation of information and registration of patent rights. Eligible applicants include commercial enterprises as well as non-university research establishments and in some cases private inventors as well.

**Funding** Grants can be obtained for between 35%-80% of costs depending on the measures and type of establishment. The incentive may be combined with other public funds up to the respective incentive ceiling.

**Contact:** Applications should be made on a printed form before the project has begun.

**Programme:** **SME-Credit 2.3 Technology**

**Sponsor:** Investitionsbank Nordrhein-Westfalen

**Scope:** The scheme aims to increase the innovation capability and competitiveness as well as the attractiveness of jobs through the application of new, progressive procedures and setting up of new production lines. Private individuals, SMEs and independent professionals engaged in technical or natural science activities in the Nordrhein-Westfalen area may apply to the scheme. (The Rechar/Objective 2 Region has different conditions).

**Funding** Loans of between DM 100,000-500,000 at the current rate of interest can be obtained for project specific investment costs. Subsidised interest rates (between 2.5% and 5% below the capital-market rate) are possible depending upon the location.

**Contact:** Applications should be made on a printed form through the SME's respective local bank.

**Programme:** **Incentives for SMEs (Technical consultancy)**

**Sponsor:** Rationalisierungskuratorium der Dt. Wirtschaft, Bremen

**Scope:** The purpose is to promote the innovative ability of SMEs by providing technical consultancy.

**Funding** Grants up to DM 200 can be applied for, consisting of a maximum of five one hour consultancy sessions at DM 40 each.

**Contact:** No printed forms are needed for applications to the Wirtschaft.

**Programme:** **FTP-Research & Technology**

**Sponsor:** Ministerium für Wirtschaft, Saarland

**Scope:** Strengthening of efficiency and competitiveness, supporting structural changes, improvement of work and training situations are all primary aims of this scheme.

- Funding:** Grants for material costs, costs of external services, gross wages and salaries can be applied for for up to 400,000DM or 40%.
- Contact:** Applications are to be made on a printed form to the Ministry.
- Programme:** **Technology Centres**
- Sponsor:** Investitionsbank des Landes Brandenburg
- Scope:** The scheme aims to contribute to the restructuring of the Regional economic structure through the closing of technological gaps and the development of industrial areas by the setting up and development of technology/business start up centres as regional service and demonstration centres. It also provides for 'incubation' centres for technology oriented SMEs.
- Funding:** Grants of up to 75%, or a maximum of 330,000DM per year, can be applied for towards material and personnel costs, qualification measures for the centre's management personnel, individuals starting up technology oriented businesses, marketing expenses and consultancy costs.
- Contact:** Applications are to be made on printed forms through the T. IN. A.

### 3.7.4 Support Organisations/Contacts

**Name:** **Deutsche Forschungsgemeinschaft (DFG)**

**Address:** Kennedyallee 40, 5300 Bonn 2

**Telephone:** + 49 02 28885-1

**Fax:** + 49 02 28 8852221

**Name:** **BioGenTec NRW (North-Rhine Westphalia)**

**Address:** Eupener Straße 159, D-80963 Köln

**Telephone:** + 49 221 9498 240

**Fax:** + 49 221 9498 2444

**Contact:** [office@biogentec.de](mailto:office@biogentec.de)

**Name:** **DECHEMA eV- German Society for Chemical Apparatus**

**Address:** Subject Group Biotechnology, Theodor-Heuss-Allee 25 60486 Frankfurt

**Telephone:** + 49 069 7564 366

**Fax:** + 49 069 7564 201

**Contact:** Dr Rolf Marris

**Name:** **Informations Sekretariat Biotechnologie (ISB)**

**Address:** DECHEMA eV, Theodor-Heus-Allee 25, D-60486 Frankfurt

**Telephone:** + 49 069 7654 163  
**Fax:** + 49 069 7564 169  
**Contact:** Dr R Marquardt [rsb@dechema.de](mailto:rsb@dechema.de)

**Name:** **Association of German Biotechnology Companies (VBU)**  
**Address:** c/o Dechema eV, Frankfurt/M  
**Telephone:** + 49 069 7564 366 & 262 for Dr Rosenbaum  
**Fax:** + 49 069 7564 201  
**Contact:** Dr Marris & Dr V Rosenbaum

**Name:** **Robert Koch Institute (RKI)**  
**Address:** Postfach 65 02 80, D13302 Berlin  
**Telephone:** + 49 030 4547-4  
**Fax:** + 49 030 4547-2328

**Name:** **BMBF - German Ministry for Education, Science, Research and Technology**  
**Address:** Referat Öffentlichkeitsarbeit, 53170 Bonn  
**Telephone:** +02 28 57 3061  
**Fax:** +02 28 57 2094  
**Contact:** Dr Heidenhof (Project Group P1) or email [information@bmbf.bund400.de](mailto:information@bmbf.bund400.de)

**Name:** **Verband der Chemischen Industrie e V.(VCI)**  
**Address:** Abt. Wissenschaft und Forschung, Karlstrasse 21, 60329 Frankfurt  
**Telephone:** +69 25 56 16 44  
**Fax:** +69 25 56 16 20  
**Contact:** Dr Hans-Jürgen Klockner

**Name:** **Federal Ministry for Research and Technology**  
**Telephone:** +49 228 57 36 69  
**Fax:** +4 9 228 57 36 05  
**Contact:** Dr Ekkehard Warmuth  
**Profile:** This contact point is for information on national and regional programmes for example the

BioRegio Contest.

**Name:** AnalytiCon AG  
**Address:** Gustav-Meyer-Allee 25, 13355 Berlin  
**Telephone:** +30 46 307 107  
**Fax:** +30 46 320 12  
**Contact:** Dr Lutz Müller-Kuhr

**Name:** Bayer AG  
**Address:** Geschäftsbereich Pharma - Biotechnologie, Friedrich-Ebert-Strasse 217  
**Telephone:** +49 202 36 24 27  
**Fax:** +49 202 36 75 24  
**Contact:** Prof Peter J W Stadler

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**Fax : + 32 2 295 7335**

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**Telephone:** 49 208 300 04 21  
**Fax:** 49 208 300 04 29  
**Contact:** Ms Hannelore Kraft

**Name:** Euro Info Centre, Deutscher Industrie - und Handelstag (DIHT)  
**Address:** Adenauerallee 148, Postfach 1446, D-53004, Bonn  
**Telephone:** 49 228 104 621/22  
**Fax:** 49 228 104 158  
**Contact:** Ms Ellen Oesterreich

**Name:** Euro Info Centre, Industrie und Handelskammer für München und Oberbayern  
**Address:** Max-Joseph Straße 2, D-80333, München  
**Telephone:** 49 89 511 62 09  
**Fax:** 49 89 511 62 90

**Contact:** Mr Michele Fuhs

**Name:** Euro Info Centre, NATI - Niedersächsische Agentur für Technologietransfer und Innovation

**Address:** Vahrenwalder Straße 7, D-30165, Hannover

**Telephone:** 49 511 935 7121/2

**Fax:** 49 511 935 74 39

**Contact:** Ms Christiane Fröchtling

**Name:** Euro Info Centre, Europäisches Beratungs-Zentrum der Deutschen Wirtschaft

**Address:** Gustav-Heinemann-Ufer 84-88, D-50968 Köln

**Telephone:** 49 221 37 08 621/623

**Fax:** 49 221 37 08 840

**Contact:** Ms Jutta Zemke-Heyl

### *3.8 Greece*

#### **3.8.1 A Brief Background to the Industry**

The General Secretariat for Research and Technology (GSRT), currently within the Ministry of Development, is responsible for stimulating the biotechnological sector as one of the three priority areas in science and technology. In 1993 R&D expenditure totalled 0.5% of GNP, compared to the EU average of 2%. Biotechnology activity is focused on the health and agro-food sectors, of which agrofood is the most active. Recent industrial R&D has been in molecular breeding and bioprocessing. A dozen universities are working in plant biotech and microbiology and two independent research institutes - Institute of Molecular Biology and Biotechnology (IMBB) and the Hellenic Pasteur Institute - are significant players in the field of immunodiagnosics. There are also a number of other Institutes active in biotechnology in Greece.

#### **3.8.2 Current Actions and Programmes**

The current operational programme for Research and Technology (EPET II 1994-1999) aims at enhancing the R&D activities within the production sector and creating closer links between public and private research. It supports the following major schemes: EKVAN – Programme of Research Consortia for Improving Industrial Competitiveness. 11% of which is dedicated to health and agriculture in the biotech sector. PENED - Programme for Enhancing Research Human Potential. 4.4% of the budget of this training and mobility programme is reserved for biotechnology. YPER - Programme of Targeted Research Fellowships. 7.3% of which is spent to finance biotechnology projects. SYN - Co-Financing Programme. Technology transfer scheme. 2.7% of which is reserved for biotechnology projects. The GSRT also allocates matching funds as a percentage of the remaining budget on the Greek side, of the R&D projects which are carried

out in the public research sector on a yearly basis for R&D organisations, and are funded by the Community Framework Programme for RTD.

### 3.8.3 Programmes at a Glance

**Programme:** **Research and Technology**

**Sponsor:** The European Commission, Greek Authorities and the Private Sector

**Scope:** The European Commission has approved an operational programme to develop Greece's technological and economic capacity and thereby encourage productive investment, thus increasing the value-added nature of its products and services. The European Community supports 54-58% of the total investment, the rest of which is covered by the Greek authorities and the private sector. The scheme comprises of a number of sub programmes which cover:

- industrial research, technology transfer and innovation
- improving and restructuring of research infrastructure
- human resources
- implementation

**Contact:** The General Secretariat for Research and Technology

Messogion 14

GR-115 10 Athens

**Programme:** **An SME Initiative**

**Sponsor:** The European Commission, Greek Authorities and the Private Sector

**Scope:** The European Commission has approved a programme under the Community INITIATIVE on SMEs which is designed to help SMEs in Greece improve their international competitiveness. This programme mainly focuses on measures to initiate financial management, the promotion of sub-contracting, the development of modern organisational methods and the improved competitiveness of enterprise clusters. The Community co-finances 53% of the projects alongside Greek authorities and the private sector. The main priorities of the scheme include:

- the modernisation of enterprises and the promotion of enterprise clusters.
- the development of the commerce and distribution sector
- the development of the SME services sector, support structures and financial engineering.
- the development of human resources.
- technical assistance to implement the programme.

Mr Pantelis Angelopoulos      Ministry of the Economy      Tel: + 30 333 23 61

Syntagma Square      Fax: + 30 333 23 67

GE-10180 Athens

**Programme:** **EKVAN - Programme of Research Consortia for Improving Industrial Competitiveness**

**Sponsor:** The General Secretariat for Research and Technology

**Scope:** This programme focuses on national R&T efforts in high priority sectors and aims at strengthening the links between the various research and technological organisations with the production sector through R&D projects. It also enhances the participation of the production sector in the overall research effort in Greece. A special action in the above programme was dedicated to the support of regional R&D activities (specifically in Northern Greece and the Aegean Islands).

**Contact:** The General Secretariat for Research and Technology      Tel:+301 77 14 162 77 10 693

Informatics Department

Fax:+ 301 77 10 693

web page <http://www.gsrt.epmhs.gr>

**Programme: YPER - Programme of Targeted Research Fellowships**

**Sponsor:** The General Secretariat for Research and Technology

**Scope:** The aim of this programme is to support industrial research and innovation activities while giving the opportunity to young researchers to support their doctoral theses

**Contact:** The General Secretariat for Research and Technology      Tel:+301 77 14 162 77 10 693

Fax:+ 301 77 10 693

Informatics Department

web page <http://www.gsrt.epmhs.gr>

**Programme: SYN - Co-Financing Programme**

**Sponsor:** The General Secretariat for Research and Technology

**Scope:** This programme promotes active collaboration between public research institutions and potential users of the research results. It covers priority, high-technology areas.

**Contact:** The General Secretariat for Research and Technology      Tel:+301 77 14 162 77 10 693

Fax:+ 301 77 10 693

Informatics Department

web page <http://www.gsrt.epmhs.gr>

### 3.8.4 Support Organisations/Contacts

**Name:** **The General Secretariat of Research and Technology of Greece**

**Address:** Informatics Department, 14-18 Messogion Avenue, 1510 Athens

**Telephone:** + 30 1 77 14 162 77 10 693

**Fax:** + 30 1 77 10 6936

**Web Page:** <http://www.gsrt.epmhs.gr>

**Name:** **The General Secretariat of Research and Technology of Greece**

**Address:** National Documentation Centre, 14-18 Messogion Avenue, 1510 Athens

**Telephone:** + 30 1 72 10 386 72 20 053

**Fax:** +301 72 46 824

**Contact Name:** Mr F Tsiboglou

**Name:** **Hellenic Sugar Industry**

**Address:** Department of Genetics and Breeding, 34 Mitropoleos Street, GR-546 23 Thessaloniki  
**Telephone:** + 301 31 79 86 10  
**Fax:** +301 79 87 26, 22 82 21  
**Contact Name** Dr George Karacis

**Name:** **Benaki Phytopathological Institute**  
**Address:** 8 Street Delta Str, GR-145 61 Kifissia, Attika  
**Telephone:** +301 80 77 506 / 80 78 917  
**Contact Name:** Mr Athanasios Alevizatos

**NOTE : For a complete listing of Euro Info Centre, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** **Euro Info Centre Eommex**  
**Address:** Hellenic Organisation of Small and Medium Sized Industries and Handicrafts, Aratou Street, 21, GR-26221 Patras  
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**Fax:** +30 61 223496  
**Contact Name** Mr Athanassios Katis

**Name:** **Euro Info Centre**  
**Address:** Piraeus Chamber of Commerce and Industry, Loudovicou 1-Pi.Odissou, GR-18531 Piraeus  
**Telephone:** +30 1 417 0529  
**Fax:** +30 1 417 4601  
**Contact Name** Mr George Drouboukis

**Name:** **Euro Info Centre**  
**Address:** Association of Industries in Thessaly and in Central Greece, El. Venizelou Road, 4, GR-38221, Volos  
**Telephone:** +30 421 28111/29407  
**Fax:** +30 421 26394  
**Contact Name** Ms Stella Vaina



### 3.9 Ireland

#### 3.9.1 A Brief Background to the Industry

Ireland has an excellent university base of biological and medical training and research, and the number of biotechnology companies continues to grow. Agriculture and Food Research Agencies have a strong presence in the different areas of R&D. There are approximately 170 companies with biotech interests in Ireland, many of them with foreign ownership. There is an estimated 45,000 people employed in biotech related companies. Industrial activities focus on diagnostics, bio-pharmaceutical, plant and animal biotech, as well as food applications. Irish biotech companies raised less than ECU 5m of Venture Capital in 1994.

#### 3.9.2 Current Actions and Programmes

The National Biotechnology Programme was set up in 1987 with the objective of developing commercially oriented biotechnology research in Irish universities. This programme resulted in the creation of Bioresearch Ireland (BRI), a contract research organisation engaged in the commercialisation of existing biotechnology and developing the expertise and facilities needed for biotech R&D. BRI has specialised Biotechnology Centres on the campuses of five Irish Universities. The specialisations were chosen on the basis of the expertise in each university and on the commercial significance of the topics. Three agencies influence biotechnology in Ireland: **Bioresearch Ireland** - as outlined above. **IDA Ireland** - which encourages inward investment. **Forbairt** the Irish development agency. Programmes of relevance for biotech SMEs in Ireland fall under two categories: National Operational Programmes under the European Community Support Framework for Ireland (1994-1999). These cover a range of activities, including support for direct R&D by companies; co-operation between industry and tertiary educational institutions; R&D salary subventions; specific research in the areas of food and drink; and environmental monitoring and marine resources. Decisions on the apportionment of such funding, available under seven main programme headings, are made at national level and are administered by National Agencies. In total, some ECU428.88million of funding is available to Ireland for R&D related activities over the period to 1999. SMEs are specifically targeted in the guidelines. Innovation and State Support Programmes, under Research and Development. The aim of these programmes is to increase awareness of science, technology and innovation; highlight the benefits to Ireland which can be gained through these activities; introduce people of all ages to exciting developments in science and technology; and encourage learning through enthusiastic participation in science and technology-based activities in the home, in school and at work. The programme is managed by Forfas. In addition, the Irish Government, recognising the growing importance of SMEs and their specific problems, introduced a number of programmes to help companies devise and implement innovation strategies. The range of State support available to innovating firms is divided into four main categories: Research and Development, Making and Improving Products, Recruitment and Training of Technical Personnel and Market Identification & Development.

#### 3.9.3 Programmes at a Glance

<b>Programme:</b>	<b>Industrial Development: Sub-Programme for R&amp;D. Industry R&amp;D Initiative (Measure 1)</b>
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**Sponsor:** European Commission and Irish Government

**Scope:** Open to all firms and brings under a single heading all financial support for company-led R&D. Guidelines and support will ensure that SMEs have equal access to this source of funding. Collaborative projects or joint ventures, enabling groups of SMEs to undertake more large-scale, commercially-oriented projects, are eligible under this initiative, as is the more active development of international linkages through the **EUREKA** initiative.

**Funding:** • Up to 50% of costs of approved company-led projects IR£88 million will be available in grant support for this initiative between 1994-1999

<b>Contact:</b>	Noel McCarthy	Forbairt	Tel: + 353 1 837 0101
	Barry O'Connell	IDA Ireland	Tel: + 353 1 668 6633
	Michael Leydon	Shannon Development	Tel: + 353 61 361 555
	Jim Harrington	Udaras na Gaeltachta	Tel: + 353 91 592 011

**Programme:** **Industry/Tertiary Level Co-operation Services (Measure 2)**

**Sponsor:** European Commission and Irish Government

**Scope:** The actions in Measure 2 are predominantly aimed at increasing tertiary education and industry co-operation and aim to develop the technological capabilities of companies through the provision of specialist expertise, graduates and services.

**Funding:** The total budget is IR£137 million. Support is available for:

- Technology transfer actions • Techman: salary subvented up to IR£17,500 per firm over 3 years for experienced specialists. R&D tasks eligible
- Techstart: subvents salary of newly qualified technical graduates up to IR£5,000 for one year. R&D tasks eligible
- Technology service, such as audits and product development.

<b>Contact:</b>	Ray McSherry (Technology Transfer)	Forbairt	Tel: + 353 1 837 0101
	Liam Bradley (Techstart)	Forbairt	Tel: + 353 1 837 0101
	Harry Murphy	Forbairt	Tel: + 353 1 837 0101

**Programme:** **Human Resource Development (Measure 3)**

**Sponsor:** European Commission and Irish Government

**Scope:** This measure is designed to improve the ability of industry to manage the process of research and technological development. It also provides advanced research and development training for graduates.

**Funding:** There is a budget of IR£13 million for:

- Postgraduate training in the research, planning and management of innovation
- Firms seriously committed to the planning and implementation of substantial changes to improve their R&D Capacities.

<b>Contact:</b>	Martin Lyes	Forbairt	Tel: + 353 1 837 0101
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**Programme:** **Research Support**

**Sponsor:** European Commission and Irish Government

**Scope:** Funding will be available for higher education-industry co-operative research projects

**Funding:** Available in 1995: IR£1.5 million

- Basic Research Grants: IR£1.0 million
- Strategic Research Grants IR£1.5 million
- Applied Research Grants • Research Scholarships. IR£0.84 million

Funding in subsequent years will be of similar magnitude.

**Contact:** Martin Lyes Forbairt Tel: + 353 1 837 0101

**Programme:** **Sub-Programme for Food Industry: Research and Development (Measure 3) Sub-measure (I)**

**Sponsor:** European Commission and Irish Government

**Scope:** This measure will provide grant-aid for the development of in-company R&D in the food industry (including beverages.) It provides the same type of assistance to the food industry as is provided to other industrial sectors under the R&D Sub-Programme Measure1.

**Funding:** Measure 3 has a budget of IR£57 million (includes funding for Institutional R&D).

**Contact:**

Noel McCarthy	Forbairt	Tel: + 353 1 837 0101
Michael Leydon	Shannon Development	Tel: + 353 61 361 555
Jim Harington	Udaras Na Gaeltachta	Tel: + 353 91 592 011

**Programme:** **Feasibility Study Grants**

**Sponsor:** Irish Government

**Scope:** The scheme aims to: • help businesses and individuals evaluate the viability of manufacturing a completely new product or exploring a new market opportunity • cover cost incurred by companies in negotiating with research partners and in preparing joint R&D proposals for submission to the EU.

**Funding:** Grants of up to 50% of eligible costs are available, to a maximum of IR£15,000 grant per project.

**Contact:**

Forbairt	Regional Offices	Tel: + 353 1 660 5544
Ronan Breslin	Forbairt	Tel: + 353 1 837 0101

**Programme** **Research and Development**

**Sponsor:** Irish Government

**Scope** Technical Support Services

Biotechnology Opportunities

**Contact:**

Bioresearch Ireland

Grants may be available to individuals, groups or companies based in Ireland towards the cost of

**Contact:** The Information Desk at Forbairt

feasibility studies on product development and market research

Tax Relief on Incremental Expenditure on R&D may be claimed against profits in the year in which expenditure is incurred. For qualifying companies there is a quadruple deduction for incremental R&D expenditure. Companies who have not received an R&D grant or who have received one not exceeding IR£50,000 qualify. This benefit is available for three years.

**Contact:**

The Revenue Commissioners, Corporate Taxes Unit Dublin Castle

Tel: + 353 1 679 2777

Royalties and other income received for the use of patents are exempt from income and corporation tax. This only applies to inventions devised in Ireland

**Contact:**

The Revenue Commissioners, Corporate Taxes Unit Dublin Castle

Tel: + 353 1 679 2777

**Programme Making and Improving your Product**

**Sponsor:** Irish Government

**Scope** Firms can obtain a range of consultancy services and also up to 50% grant towards the set-up costs for joint ventures or licensing arrangements.

**Contact:** Forbairt Information Desk

Tax relief is available to individuals for investment in companies carrying out certain trading operations in manufacturing and some service companies. The maximum amount that can be raised by associated companies will be IR£1million and the amount invested in eligible shares is subject to a IR£25,000 limit in any one year.

**Contact:**

The Revenue Commissioners, Corporate Taxes Unit, Dublin Castle

Tel: + 353 1 679 2777

**Seed Capital Scheme**

Relief is provided in respect of an individual's investment in a new business venture in an approved trading area.

**Programme: Recruitment and Training of Technical Personnel**

**Sponsor:** Irish Government

**Scope:** Services to the Firm are available for:

- Personnel Services
- Consultancy Services
- Recruitment and Training Services

**Contact:**

Forbairt Information Desk

FAS Services to Business Section

Tel: + 353 1 668 5777

Grants are available for: • Personnel • Training • Development

**Contact:**

Forbairt Information Desk

Shannon Development

Tel: + 353 61 361 555

**Programme:** **Market Identification and Development**

**Sponsor:** Irish Government

**Scope:** The following services are available:

- Marketing Information and Promotional Activities
- Marketing Personnel
- Market Development

Grants are available for: • Marketing Sales Development

**Contact:**  
The Client Service Desk  
Tel: + 353 1 206 6223

**Contact:**  
The Client Service Desk  
Tel: + 353 1 206 6223

#### 3.9.4 Support Organisations/Contacts

**Name:** **An Bord Trachtala - established 1991**

**Address:** Merrion Hall, Strand Road, Dublin 4

**Telephone:** + 353 1 269 5011

**Fax:** + 353 1 269 5820

**Name:** **Animal and Plant Health Association**

**Address:** Franklin House, 140 Pembroke Road, Dublin 4

**Telephone:** + 353 1 660 3350

**Fax:** + 353 1 686 672

**Email:** [ALPHA@IOL.IE](mailto:ALPHA@IOL.IE)

**Contact:** Mr D.O'Brien  
Dr C.O'Reilly  
Mr E Teehan

**Name:** **Bord Iascaigh Mhara (Irish Sea Fisheries Board)**

**Address:** PO Box No 12, Crofton Road, Dun Laoghaire, Co Dublin

**Telephone:** + 353 1 284 1544

**Fax:** + 353 1 284 1123

**Contact:** Mr A Gannon  
Mr J Somers

**Name:** **BioResearch Ireland - established 1987**

**Address:** Forbairt, Glasnevin, Dublin 9

**Telephone:** + 353 1 837 0177

**Fax:** + 353 1 837 0176

**Email:** [breslind@biores-irl.ie](mailto:breslind@biores-irl.ie)

**Contact:** Man Dir: Dr Jim Ryan  
Mrkt Mngr: Mr Seamus O'Hara

**Name:** **DEVCO Ireland-State Agencies Development Co-Op Organisation - est 1975**

**Address:** Marshalsea Court, 23 Merchants Quay, Dublin 8

**Telephone:** + 353 1 661 3616

**Contact:** Ms B Howard

**Name:** **Environmental Protection Agency**

**Address:** Ardavan, Wexford

**Telephone:** + 353 53 47120

**Fax:** + 353 53 47119

**Contact:** Mr L Mc Cumiskey

**Name:** **Euro Info Centre**

**Address:** Irish Trade Board/ An Bord Trachtala, Merion Hall, Strand Road, Sandy mount , Dublin 4.

**Telephone:** + 353 1 206 6000

**Fax:** + 353 1 206 6367

**Contact:** Ms Margaret Hogan

**Name:** **Euro Info Centre**

**Address:** Shannon Development, The Grannary, Michael Street, Limerick.

**Telephone:** + 353 61 410 777

**Fax:** + 353 61315 634

**Contact:** Ms Nuala O 'Carroll

**Name:** Euro Info Centre

**Address:** Cork Chamber of Commerce, 67/69 South Mall, Cork.

**Telephone:** + 353 21 509 044

**Fax:** + 353 21 271 347

**Contact:** Ms Renata Murphy

**Name:** Euro Info Centre

**Address:** Galway Chamber of Commerce and Industry, Commerce House, Merchants Road, Galway.

**Telephone:** + 353 91 562 624

**Fax:** + 353 91 561 963

**Contact:** Mr Jarlath Feeney

**Name:** FAS - The Training and Employment Authority - established 1988

**Address:** 27-33 Upper Baggot Street, Dublin 4

**Telephone:** + 353 1 668 5777

**Fax:** + 353 1 660 0079 / 668 2691

**Contact:** Dr J Lynch Mr G Pyke

**Name:** Fisheries Research Centre

**Address:** Marine Institute, Castleknock, Abbotstown, Dublin 15

**Telephone:** + 353 1 821 0111

**Fax:** + 353 1 820 5078

**Contact:** Dr D Griffith

**Name:** Forbairt - established 1994

**Address:** Glasnevin, Dublin 9

**Telephone:** + 353 1 808 2000

**Fax:** + 353 1 808 2020

**Email:** [infodesk@forbairt.ie](mailto:infodesk@forbairt.ie)

**Contact:** Mr Alan Dixon - Head of Corporate Communications

**Name:** **Health and Safety Authority - established 1989**

**Address:** 10 Hogan Place, Dublin 2

**Telephone:** + 353 1 662 0400

**Fax:** + 353 1 662 0417

**Contact:** Mr T Walsh

**Name:** **Health Research Board**

**Address:** 73 Lower Baggot St, Dublin

**Telephone:** + 353 1 676 1176

**Fax:** + 353 1 661 1856

**Email:** [hrb@hrb.ie](mailto:hrb@hrb.ie)

**Contact:** Dr J V O'Gorman - Chief Executive

**Name:** **IDA - Ireland**

**Address:** Wilton Park House, Wilton Place, Dublin 2

**Telephone:** + 353 1 603 4000

**Fax:** + 353 1 603 4040

**Contact:** Mr K Mc Gowan Mr A Condon

**Name:** **Industry Research & Development - established 1992**

**Address:** Confederation House, 84-86 Lower Baggot Street, Dublin 2

**Telephone:** + 353 1 605 1608

**Fax:** + 353 1 661 1095

**Contact:** Mr Richard Kavanagh MD Ms Carole Meyers

**Name:** **Irish Business and Employers Confederation (IBEC)**

**Address:** Confederation House, 84-86 Lower Baggot St, Dublin 2

**Telephone:** + 353 1 6601011

**Fax:** + 353 1 660 1717

**Contact:** Mr Tony O'Brien - President Mr T Barry and Mr T Kilduff - Vice Presidents Mr John Dunne -



Director General

**Name:** **Irish Medicines Board - established 1996**

**Address:** Earlsfort Centre, Earlsfort Terrace, Dublin 2

**Telephone:** + 353 1 676 4971

**Fax:** + 353 1 676 7836

**Contact:** Mr John J Kelly

**Name:** **Teagasc - The Agriculture and Food Development Authority**

**Address:** 19 Sandymount Avenue, Ballsbridge, Dublin 4

**Telephone:** + 353 1 668 8188

**Fax:** + 353 1 668 8023

**Contact:** Dr Liam Downey

**Name:** **Salmon Research Agency of Ireland Inc - established 1989**

**Address:** Farran Laboratory, Newport, Co Mayo

**Telephone:** + 353 98 41107/411 12

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**Contact:** Dr K Whelan

### ***3.10 Italy***

#### **3.10.1 A Brief Background to the Industry**

The Italian Government promotes biotechnology by providing subsidies to companies and research institutes and the associations which bring the two together. Two organisations, the Consiglio Nazionale delle Ricerche (CNR) and Ministry of University and Research (MURST) manage programmes. The CNR programmes strengthen the research base, and the MURST programmes support pre-competitive research in the interests of industry. Between 1991 and 1994, the number of biotech companies in Italy increased from 135 to 210, 58 of which concentrate on equipment and engineering, while 75 specialise in marketing only. The majority of the companies are based around Milan. Two out of three SMEs have received finance from venture capitalists, approximately ECU3 million was raised in 1993 alone. The main areas of expertise include health products, agri-food products, fine chemicals and environmental protection products and equipment. Ten science and technology parks are planned for southern Italy and other industrially disadvantaged areas following a government initiative which granted ECU 780m. The Inter-university Consortium for Biotechnologies (CIB) was founded in 1987 by seven universities. By January 1997, participation had grown to 19 universities and one national

institute. CNR has a network of research institutes which covers the whole country. In 1996 the National Agency for New Technology, Energy and the Environment (ENEA) spent ECU 18m on R&D.

### 3.10.2 Current Actions and Programmes

The 'National Programmes' are in fact instruments, provided for by a National law (No 46 of 1982) on the implementation of *Interventions in those sectors of the economy which have national importance*. They precede any research action of the CNR Targeted Projects and their contents are precisely defined by the by the Civil Service. The research is then carried out by either single firms, or groups of firms, or by firms associated with public research bodies. National Research Programmes originated truly under the auspices of the State through specific projects. Therefore, the findings of such research are State property, and the State regulates them and assigns them for a consideration to firms for commercialisation. In April 1994 MURST adopted a Plan for the period 1994-1998 which provides for the following priorities in biotechnological research: the study of fundamental biological processes at molecular and cellular level. the study of the most important genomes, including innovative sequencing methods. bio-computer science. the applications of molecular genetics to human health, agriculture, chemical industry and the environment. The CNR is currently preparing for the following draft programmes which are to run for five years

**The Biotechnology Project:** This programme is to cover six areas and the requested budget is ECU 66 million. The subjects include: molecular engineering and structural biology, environmental biotechnology, modifications of cells, cellular systems and organisms, fermentation processes, bioconversion, bioseparations and agro-industrial biotechnology, biotechnology for drug production and control of cellular differentiation, biosensors and diagnostic biotechnology

**The Genetic Engineering Project:** A requested budget of ECU 30 million and is to encompass four main areas: human genome, gene therapy, RNA technologies for diagnostics and animal models for the study of development

**A Strategic Project in the Field of Biology:** This programme is subsequent to a Target Project on the reproduction of animals of zootechnical interest, and has a requested budget of ECU450,000.

**Gene Therapy Project:** The Ministry of Health is running this three year project with a budget of ECU3 million

**Plant Biotechnology:** Is a project funded by the Ministry of Agriculture at a budget of ECU15 million

Law No 46/1982 provides for several means of supporting research and other innovative activities in firms. In particular, it provides for the Technological Innovation Fund (FIT) run by the Ministry of Industry, Commerce and Crafts, and the Applied Research Fund (FRA) run by IMI for the Ministry of University and of Technological and Scientific Research. The interventions to support the FIT are mainly loans given to the firms at concessionary rates in order for them to carry out innovation projects. Conversely, the FRA operates through several instruments: research projects independently presented by the firms can obtain subsidies, partly at concessionary rates, partly as sunk capital; National Research Programmes (PNRs) relevant to subjects considered to be of priority interest can receive funding of up to a 100% for research and training. The results of which are State property with the potential of being handed over to firms. The structure of the support instruments is under revision to make it conform to Community norms; contributions to small and medium sized firms for research programmes and services assigned to laboratories recognised by the MURST. Funding up to 50% of expenses incurred, up to a limit of 200 million Lire can be applied for; financing of technological transfer initiatives and of the relevant training to small and medium sized firms including those in Scientific and Technological Parks.

### 3.10.3 Programmes at a Glance



**Programme:** ERDF - Research and Technological Development

**Sponsor:** The European Commission and National and Regional Authorities

**Scope:** This operational programme was approved in order to support technological research, development and innovation in the Mezzogiorno regions. The Community co-finances 58.43%, the remainder of which is provided by the national and regional authorities and the private sector. The scheme focuses on four sub-programmes: 1. Training - particularly at a high level and relevant infrastructure, the establishment of infrastructure and facilities for science faculties, with a view to narrowing the gap between the south and the centre/north of the country in this field and increasing student intake in these faculties in the Mezzogiorno compared with other disciplines. 2. Research and Innovation - this involves support for government controlled research centres (The National Agency for New Technology, Energy and the Environment (ENEA), the Consiglio Nazionale delle Ricerche (CNR), the Anton Dohrn Zoological Station for Marine Biology and Biotechnology Research and more) and soft loans and subsidies to promote industrial research via the fund for applied research which is open to industrial enterprises and SMEs in particular. 3. Dissemination of innovation - this is essentially technology transfer and covers the promotion of science and technology parks, in particular with a view to supporting innovative SMEs initiatives and financing for a large-scale programme for the construction of science and technology parks in the Mezzogiorno region. 4. Technical assistance.

**Contact:** MURST Ministero dell'Università e delle Ricerca Scientifica e Tecnologica, Lungotevere Thaon di Revel, I-00196 Roma

**Programme:** ERDF Programme for SMEs

**Sponsor:** The European Commission and National Authorities

**Scope:** This programme falls under the SME Community Initiative designed to maximise the role of SMEs, particularly in the South of the Country. The Community co-finances 30% of total investment, the balance is covered by National authorities and private agencies. The scheme is divided into 5 sub-programmes details of which can be obtained in the appropriate programme document.

**Contact:** Ministero dell'Industria, Commercio e Artigianato      Tel: + 39 6 47 05 20 22  
Direzione Generale della Produzione Industriale      Fax: + 39 6 47 44 04 8  
Via Molise, 2  
I-00100 ROMA

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**Contact:** Dott.sa Caterina Dolcetti

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**Telephone:** + 39 2 26 66 498  
**Fax:** + 39 2 26 63 030  
**Contact:** Prof Michele Perrella

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**Address:** Via Sterra Nevada 60, I-00144 Rome  
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**Fax:** + 39 6 59 94 42 49  
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**Address:** Via S Francesco da Paola 24, I-10123 Torino  
**Telephone:** + 39 11 57 16 517  
**Fax:** + 39 11 57 16 375  
**Email:** innovation.r.c'st.alpcom.it  
**Contact:** Mr Pier Luigi Modotti

**Name:** **Consorzio MIP Politecnico di Milano/LARICE**  
**Address:** Via Rombon,11, I-20134, Milano  
**Telephone:** + 39 22 15 15 00  
**Fax:** + 39 22 15 23 09  
**Email:** [larice@mail.mip.polimi.it](mailto:larice@mail.mip.polimi.it)  
**Contact:** Mr Angelo Gatto

**Name:** **ENEA/IRENE**  
**Address:** via Don Fiammelli, I-40100 Bologna

**Telephone:** + 39 51 60 98 197  
**Fax:** + 39 51 60 98 084  
**Email:** [irene@risc990.bologna.enea.it](mailto:irene@risc990.bologna.enea.it)  
**Contact:** Mr Massimo Gazzotti

**Name:** **Consorzio Pisa Ricerche/RECITAL**  
**Address:** Piazza Alessandro D'Acona1, I-56127 Pisa  
**Telephone:** +39 50 90 62 60  
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**Telephone:** + 39 80 87 70 238  
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**Email:** [iride@vm.csata.it](mailto:iride@vm.csata.it)  
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**Contact:** Mrs Diassina Di Maggio

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**Contact:** Mr Lorenzo Maggio

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### ***3.11 Luxembourg***

#### **3.11.1 A Brief Background to the Industry**

No information supplied.

#### **3.11.2 Current Actions and Programmes**

No information supplied.





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### ***3.12 The Netherlands***

#### **3.12.1 A Brief Background to the Industry**

Since the early 1980s, the Netherlands has encouraged innovation in high-technology areas. Biotech R&D has grown from the strong food sector and science-based agricultural sector. There

is a high level of collaboration between universities and industry. In the early 1990s the total R&D expenditure was 1.9% of GNP. Currently there are 290 companies in the biotech industry, with an expected 25% increase in the next medium term. Food, agriculture, environment and pharmaceutical applications are the four major areas. Research involves liaison with foreign industries, universities and institutes. There is a general open exchange of information about food and ingredients created by modern biotechnology. The total number of industrial and academic scientists involved in biotechnology in The Netherlands is estimated to be between 3,000-4,000. Most of the 290 companies conduct their own biotech research, particularly in the fields of food, agriculture, pharmaceutical applications and the environment. Companies co-operate extensively with universities and research institutes, as well as other R&D companies.

### 3.12.2 Current Actions and Programmes

Dutch companies participated in almost one-third of all European EUREKA projects and there is good participation in the Dutch biotech programmes as well. There are several subsidies available for industrial R&D and feasibility studies. Risk-associated loans for product development of high risk, high technology projects are available under the TOK scheme. This scheme is an extension of the support for industrial research and development, and offers a fixed interest loan with a pay back period that is linked to commercial success over 10 years. The government offers help with the wages of personnel involved in qualified R&D through deductions from the wage tax.

### 3.12.3 Programmes at a Glance

<b>Programme:</b>	<b>TOK Scheme</b>	
<b>Sponsor</b>	Senter	
<b>Scope:</b>	This scheme is an extension of support for industrial research and development and offers a fixed interest loan with a pay back period that is linked to commercial success over 10 years. The project must involve substantial technical risk, be a new product for the Netherlands and the company must have a good track record and qualified management.	
<b>Funding:</b>	Dutch companies can obtain a loan of up to Dfl 25 million per year, subject to a payback based upon the success of the company and its product.	
<b>Contact:</b>	Mr van Terwisga Senter PO Box 30732 2500 GS The Hague	Tel: +31 70 361 0341/361 0319  Fax: +31 70 361 4430

<b>Programme:</b>	<b>PBTS - Industrial Technology Stimulation Programme</b>	
<b>Sponsor</b>	Senter	
<b>Scope:</b>	There is no time limit fixed on the programme. Most of the research under the programme is between companies or between industry and research centres. The government has set aside ECU 11.5m for the period of 1995-1997.	
<b>Funding:</b>	Up to 37.5% of costs is subsidised	
<b>Contact:</b>	Mr van Terwisga Senter	Tel: +31 70 361 0341/361 0319

PO Box 30732  
2500 GS The Hague

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**Programme: ABON (Association of Biotechnology Research Schools) Research Programme**

**Sponsor** Dutch Government

**Scope:** The scheme will cover five years of research in five different research schools and be co-financed by industry. The research themes of the programme are structure-function relationships of proteins and of food-grade polysaccharides, resistance of plants, metabolic pathway engineering and integrated bioprocess development.

**Funding:** Dfl 17 million governmental grant

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Secretariat ABON  
Kluyver Laboratory for Biotechnology Delft  
University of Technology  
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2628 BD Delft

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email: [pieter.bos@stm.tudelft.nl](mailto:pieter.bos@stm.tudelft.nl)

**Programme: Human Genome Analysis Programme**

**Sponsor** NOW - Netherlands Organisation for Scientific Research

**Scope:** The programme runs from 1991-1997. It aims to study diseases which are hereditary and the ethical and social aspects which are connected with suffering from the diseases

**Funding:** Budget of ECU 450,000

**Contact:** Mr Maesseu  
NWO

Tel: +31 70 344 0640  
Fax: +31 70

**Programme: MIBITON Support Scheme**

**Sponsor** MIBITON

**Scope:** Extensive biotech investments in specialised equipment and facilities with high safety standards.

**Funding:** Dfl 30 million

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PPS Mibiton  
Vlietweg 16  
2266 KA Feidschendam

Tel: 31 70 320 3527  
Fax: 31 70 320 5765  
e-mail [mibiton@xs4all.nl](mailto:mibiton@xs4all.nl)

**Programme: TNO Biotechnology R&D Programme**

**Sponsor** TNO - The Netherlands Organisation for Applied Scientific Research

**Scope:** This programme concentrates on six broad themes: bioconversion food and chemicals, bioconversion environment, biotechnology for health, biomonitoring and biosafety, functional proteins and carbohydrates, plant biotechnology.

**Contact:** Drs. JW van der Kamp  
TNO Bureau for Biotechnology  
PO Box 360  
3700 AJ Zeist

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Fax: + 31 3069 44901  
email:  
[vanderKamp@voeding.tno.nl](mailto:vanderKamp@voeding.tno.nl)

**Programme:** Resider II IJmond

**Sponsor** DG XVI

**Scope:** This programme will contribute to the economic and social conversion of the IJmond region. One of the main measures is the promotion of technologies and industrial development. Another is networking in the industrial and services sectors, assistance for SMEs, Venture capital etc. It covers the period of 1994-97.

**Funding:** The Community part-financing will amount to 35.15% of total investment, the remainder being provided by the national and local authorities and the private sector. Of the 35.15% from the Community, 81.22% will be funded from ERDF and 18.78% from ESF.

**Contact:** IJmond Ijzersterk Project Bureau  
Huize Scheybeeck  
Velsersweg 2, NL - 1942 LD Beverwijk

Tel: + 31 251 223232

**Programme:** Netherlands Friesland, Objective 5b

**Sponsor** DG XVI

**Scope:** This programme is Community co-funded to ECU 68.7 million. It will be used to help increase levels of employment in SMEs in all sectors. One of its main priorities is enterprise development through the creation of research and information centres and encouragement of technology transfer to revitalise the existing industrial sites.

**Funding:** 26% of overall estimated costs will be contributed from the structural funds of which 63.31% comes from ERDF, 6.69% from ESF and 29.98% from EAGGF.

**Contact:** Provincie Friesland  
Programmamanagement 5b  
Postbus 20120  
NL - 8900 HM Leeuwarden  
Regionaal Bureau Arbeidsvoorsiening  
ESF Projectbureau  
Postbus 2202  
NL - 8901 JE Leeuwarden

Tel: + 31 58 292 5568  
Fax: + 32 58 292 5124  
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**Programme:** Netherlands SME

**Sponsor** DG XVI

- Scope:** This programme aims to help SMEs to adapt to external influences in terms of new markets, internationalisation, new technologies and management. It is concerned with technological innovation, co-operation between SMEs and research centres and the exchange of projects between them.
- Funding:** 38.49% of the total investment will be funded by the Community, with the remainder being met by national authorities and the private sector. ERDF will contribute 96.26% and ESF the remaining 7.74% of the Community's contribution.
- Contact:** Mrs de Jonge  
Co-ordinator SME - Programme  
Ministry of Economic Affairs  
PO Box 20101  
NL-2500 EC Den Haag
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**Contact:** Dr Th Kramer

**Name:** **TNO (Netherlands Organisation for Applied Research) [associated member]**  
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### ***3.13 Portugal***

### 3.13.1 A Brief Background to the Industry

The majority of publicly funded biotechnology research in Portugal is based in the Lisbon area and accounts for approximately 60% of all expenditure. In second place lies the Region of Oporto which accounts for 14% of R&D spending. Research tends to focus on food-related bio-processing and microbiology, crop improvements through genetic modification of specific traits, applied biochemistry and biophysics. Traditionally, research has been predominantly academic, and only 11% of the projects listed below involve industry.

Nonetheless, 1996 saw the emergence of an entrepreneurial bioscience sector and new companies were established and old ones restructured to become more biotech-oriented. Two Portuguese companies participated for the first time in the exploratory phase of the European Union's 4<sup>th</sup> Framework Programme for SMEs.

A private institution called Innovation Agency (ADI), has been particularly instrumental within the biotech sector in promoting the development of new products, technologies and activities via industry/academic consortia, and breaking down, the traditional gaps between academic researchers and industrialists.

In addition to those sectors mentioned in the opening paragraph, the biotech industry is strong on biological waste treatment and bioconversion of energy.

There are ten research centres, 11 universities and two large institutes involved in research.

### 3.13.2 Current Actions and Programmes

The Portuguese National Institute of Scientific Research is setting up networks to promote links between universities, research centres and establish programmes. The main government bodies responsible include: The Foundation for Science and Technology, the Science and Technology Observatory and the Institute for International Co-operation in Science and Technology (ICCTI).

### 3.13.3 Programmes at a Glance

<b>Programme:</b>	<b>PRAXIS XXI</b>	
<b>Sponsor:</b>	ICCTI - The Institute for International Co-operation in Science and Technology	
<b>Scope:</b>	The main aim of this scheme is to strengthen the scientific and technological system's foundations by supplying R&D assistance. It directs research towards new technologies which will eventually support production modernisation. It continues the work of CIENCIA and STRIDE, similar previous programme.	
<b>Contact:</b>	Mr Jorge Nascimento	Tel: + 351 8 47 10 22
<b>Programme:</b>	<b>PRAXIS XXI - Industry</b>	
<b>Sponsor:</b>	ICCTI - The Institute for International Co-operation in Science and Technology	
<b>Scope:</b>	The aim of the scheme within industry includes establishing: <ul style="list-style-type: none"> <li>- a connection between technological centres and industry, by providing technical training to employees, technological support and applied technological research</li> </ul>	



- placing research within industry
- supporting co-operation between companies regarding innovation and technology.

**Programme:** **PRAXIS XXI - Agriculture**

**Sponsor:** ICCTI - The Institute for International Co-operation in Science and Technology

**Scope:** The main priorities within the sector of agriculture include supporting R&D and the spreading of technology in areas related to agricultural research.

**Programme:** **PRAXIS XXI - Other Levels of Assistance**

**Sponsor:** ICCTI - The Institute for International Co-operation in Science and Technology

**Scope:** Praxis XXI also intervenes at other levels covering:

- Financing of research units and research programmes in government laboratories
- Strengthening of overall infrastructure through the creation and enlarging of R&D Laboratories
- The development of Science and Technology Systems, thus, stimulating high quality research programmes and projects
- Promotion of research programmes and projects within the area of advanced technologies to support the diversification and modernisation of industry.
- Supporting the distribution of grants and the contracts of scientists.

**Programme:** **ERDF SME Initiative**

**Sponsor:** The European Commission and National Authorities

**Scope:** The European Commission has approved a programme under the SME Community Initiative. This programme's objective is to create conditions for strengthening the position of SMEs in the Internal Market so as to guarantee their role in the creation of wealth at regional and local levels. Another major objective is to encourage a collective awareness of the need to create new jobs in innovative areas, in line with the *White Paper on Growth, Competitiveness and Employment*.

The main schemes under the programme which are potentially of interest to biotechnology SMEs are:

- Training in advanced technologies for SME managers
- Facilities to improve SME access to finance and credit
- The creation of a Technical Information Centre for SMEs
- Grants for projects strengthening technological competence in SMEs by defining needs, providing technical support, transferring technology from science and technology institutes to SMEs.

The Programme is due to run until 31 December 1999.

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Tel: + 351 1 881 40 00

DGDR

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Rua Sao Huhao 63

P-1010 Lisboa

**Programme:** **ERDF Skills Base and Innovation**

**Sponsor:** The European Commission and National Authorities

**Scope:** The European Commission has approved an operational programme to support education and scientific and technical research in Portugal, building on the results of the previous programming period.

The Community finances 74.21% of total investment, the remainder of which is provided by the national, regional and local authorities and the private sector.

The main scheme under this programme of relevance to biotech SMEs are the:

- Sub-programmes for science and technology: involvement of industry in research and development; support for university research projects; an increase in the number of researchers; training of laboratory assistants and research centre managers, and an integration of researchers into industry by strengthening links between companies and universities.

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Gestao do ProdepII

Pr. De Alvalade 12

P-1700 Lisboa

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**Fax:** + 351 1 39 75 14 04

**Contact:** Mrs Margarida Garrido

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**Contact:** Prof Augusto Medina

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**Contact:** Prof José Manuel Carrondo

**Name:** **ICBAS - Instituto de Ciências Biomédicas Abel Salazar**

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 INETI (Instituto Nacional de Egenharia e Tecnilogia Industrial)  
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**Email:** [jose.Empis@ibqta.ineti.pt](mailto:jose.Empis@ibqta.ineti.pt)  
**Contact:** Prof. Dr. José Empis

### *3.14 Spain*

#### **3.14.1 A Brief Background to the Industry**

Knowledge and technical skills in biotechnology within Spain have been built up gradually, and only recently have university researchers and companies started participating in joint projects. Nonetheless the industry is steadily growing with the main focus on agri-food.

250 companies in total are active in the biotech sector in Spain. Industrial activities focus on diagnostics, fine chemicals, antibiotics and plant breeding. 40% of new companies to the industry are working in agri-foods. In 1994 a Venture Capital fund of ECU 12m was created for biotech and biomedical companies.

The Biotechnology sector is predominantly centred around Madrid and Barcelona, and these cities have the largest concentration of universities and also the new National Centre for Biotechnology. Public research centres, institutes and universities are all very active in biotech R&D and play an important role within the sector. The public research sector is twice the size of the private sector in terms of employment.

#### **3.14.2 Current Actions and Programmes**

Since 1988, Spain has operated a National Biotechnology Plan. The national programmes focus on:

agri-food R&D

human and animal health

bio-processing and environmental biotech.

These are integrated into various specific plans, mainly the Technological Development Plan for

Biotechnology, Chemical Technology and Advanced Materials (BQM Plan). The eligible areas for funding include: training, instrumentation & utilities, international relations (fellowships), the National Biotechnology Centre and R&D projects.

### 3.14.3 Programmes at a Glance

- Programme:** **The RTD National Plan (1996-99)**
- Sponsor:** Ministerio de Educación y Cultura
- Scope:** This programme focuses particularly on the academic sector and public RTD organisations. It also involves some collaboration with companies.
- Contact:** Dolores Cobo Tel: + 34 1 33 60 400  
 Secretaría General del Plan Nacional de I+D  
 (Dpto de Calidad de Vida)  
 Comisión Interministerial de Ciencia y  
 Tecnología  
 Roasario Pino 14  
 E-28020 Madrid
- Programme:** **The ATYCA Initiative (1997-99)**
- Sponsor:** Ministerio de Industria y Energía
- Scope:** This scheme consists of grant funding to companies, particularly SMEs, for RTD work. The programme has established some specific technological areas for preferential activity.
- Contact:** Juan Carlos Malpaso Tel: + 34 1 34 94 397  
 Dirección General de Tecnología y Seguridad Industrial Tel: + 34 1 39 94 398  
 Ministerio de Industria y Energía  
 Paseo de la Castellana 160  
 E-28071 Madrid
- Programme:** **The Industrial Technological Development - Global Grant**
- Sponsor:** The European Commission and National, Regional and Local Authorities
- Scope:** The European Commission approved a global grant to the Centro para el Desarrollo Tecnológico Industrial (CDTI), with a view to developing the endogenous potential of Spanish Regions whose development is lagging. The purpose is to improve the technological capacity of the corporate sector and promote technology applications in industry.
- The Community provides 30.3% of the funding, which takes the form of subsidies, which will be reimbursable where a project is successful, so that the sums thus recovered may be reinvested.
- The scheme consists of three sub-programmes:

- Technology Projects - involving new products and processes in line with market requirements, business assimilation of innovative technologies, marketing of technology outside Spain
- Technology Services - which involves information, transfer and promotion of technology in the business community
- Technical assistance, monitoring and information.

**Contact:**

Ministerio de Economía y Hacienda	Centro para el Desarrollo Tecnológico Industrial (CDTI)
Dirección General de Planificación	Edificio Cuzco IV
Paseo de la Castellana 162	Paseo de la Castellana 141,11°
E-28046 Madrid	E-28046 Madrid

**Programme:** **An ERDF SME Programme**

**Sponsor:** The European Commission and National Authorities

**Scope:** This operational programme was approved under the SME Community Initiative and is designed to counteract problems due to a lack of competitiveness and economic vitality in SMEs in eligible areas under EU Objectives 1, 2 and 5B. The programme aims to improve the business environment and co-operation between SMEs, to boost technological awareness and access to information networks and to increase access to finance.

The areas that the programmes focus on include:

- The development of SME co-operation networks.
- Training in information technology and dissemination.
- Improvement of the overall business environment, services available and various intagibles.
- Increased financial assistance and advice, access to loans and other financial tools.
- Support for research and development.

**Contact:**

Instituto de la Pequeña y Mediana Empresa Industrial (IMPI)	Tel: + 34 1 582 93 02
Paseo de la Castellana 141	
E-28071 Madrid	

**Programme:** **Technological R&D Infrastructure Programme**

**Sponsor:** Diputación Foral de Guipúzcoa

**Scope:** The purpose of this scheme is to facilitate technology transfers and R&D activities, and include investments in research units and technology transfer activities.

It is directed at non profit seeking organisations, public research centres of the Gobierno Vasco, universities, and sectorial centres of R&D in País Vasco within the Province of Guipúzcoa.

Mikel Idiazabel Tel: + 34 43 48 22 23

Dpto de Economía y Turismo  
 Diputación Foral de Guipuzcoa  
 Plaza de Guipuzcoa s/n  
 E-2004 San Sebastian

**Programme:** **The National Programme of Biotechnology**

**Sponsor:** Ministerio de Educación

**Scope:** The purpose of this scheme is to promote the setting up and running of R&D projects in the areas of food and agriculture, animal and human sanitation, engineering of bio-technical processes and the environment. It is directed at Public or private investigation centres, universities, associated scientific investigators and non-profit making organisations.

**Contact:** José M Martínez Zapater Tel: + 34 1 33 60 479

Plan Nacional de Biotecnología  
 Comisión Interministerial de Ciencia y Tecnología  
 Rosario Pino 14  
 E-28020 Madrid

#### 3.14.4 Support Organisations/Contacts

**Name:** **Asociacion de Bioindustrias**  
**Address:** Brus, 72 cth, 08009 Barcelona, Spain  
**Telephone:** + 34 3 48 40 00  
**Fax:** + 34 3 487 65 20  
**Contact:** Mr Joan Guixer

**Name:** **Secretaria General de Medio Ambiente**  
**Address:** Paseo de la Castellano 67, E-28071 Madrid  
**Telephone:** + 34 1/5 97 74 88  
**Fax:** + 34 1/5 97 85 13  
**Contact:** Ms Eliza Barahona

**Name:** **Centro para el Dessarrollo Tecnológico Industrial**  
**Address:** Ministerio de Industria, Comercio y Turismo Edificio Cuzco IV, Paseo de la Castellana 141, E-28046 Madrid  
**Telephone:** + 34 1 581 55 62/66



**Fax:** + 34 1 581 55 84/76

**Contact:** Dr A Beltran

**Name:** **Secretaria General del Plan Nacional de I+D**

**Address:** c/Rosario Pino 14-16, E-28020 Madrid, Spain

**Telephone:** + 34 1 33 60 400 (ext 656)

**Fax:** + 34 1 33 60 435

**Contact:** Dr J L Garcia Lopez

**Note : For a complete listing of Euro Info Centres, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** **Euro Info Centre**

**Address:** Sodical, Edificio CEI, Parque Tecnológico de Boecillo, E-47151 Boecillo, Spain

**Telephone:** + 34 983 54 80 55

**Fax:** + 34 983 54 80 27

**Email:** [hanna@europaa.sitecal.es](mailto:hanna@europaa.sitecal.es)

**Contact:** Mme Carolina Calvo Revilla

**Name:** **Euro Info Centre**

**Address:** Confederación Regional de Empresarios de Aragón, Plaza Roma F-1, 1a planta, E-50010 Zaragoza, Spain

**Telephone:** + 34 976 46 00 66

**Fax:** + 34 976 32 29 56

**E mail:** [Creacic@mail.sendanet.es](mailto:Creacic@mail.sendanet.es)

**Contact:** M Jorge Alonso Vallejo

**Name:** **Euro Info Centre (Antene de Es 218-Llanera)**

**Address:** Federación Asturiana de Empresarios, c/Dr Alfredo Maritnez 6, 2-a Planta, E-33005, Oviedo, Spain

**Telephone:** + 34 8 52 32 105

**Fax:** + 34 8 52 44 176

**E mail:** [empres@ibm.net](mailto:empres@ibm.net)

**Contact:** Mlle Maria Martin

**Name:** **Universidad de Alicante**  
**Address:** OTRI Campus de San Vicente, Apdo de Correos 99, E-03080 Alicante  
**Telephone:** + 34 65 90 34 67  
**Fax:** + 34 65 90 34 64  
**Email:** [otri@ua.es](mailto:otri@ua.es)  
**Contact:** Mr José Valero Torres

**Name:** **Instituto de Fomento de Andalucía**  
**Address:** Torneo 26, E-41002 Sevilla  
**Telephone:** + 34 54 90 00 16  
**Fax:** + 34 54 90 61 77  
**Contact:** Mr Antonio Ramírez Mejías

**Name:** **Ceneo-Cetema**  
**Address:** Ctra.Valencia, Km 7,300, E-28031 Madrid  
**Telephone:** + 34 13 31 24 00  
**Fax:** + 34 13 31 54 72  
**Email:** [Jimana@cero.cetema.es](mailto:Jimana@cero.cetema.es)  
**Contact:** Julia Imana

**Name:** **Telleria IMPI - Craft Focal Point**  
**Address:** Paseo de la Castellana 141, Edif Cuzco IV, E-28046, Madrid  
**Telephone:** + 34 1 582 93 98  
**Fax:** + 34 1 571 28 31/582 93 99  
**Contact:** Mr Ignacio Atorrasagasti

**Name:** **Universidad de Córdoba**  
**Address:** OTRI, Campus de Rabanaics, Ctra de Madrid dm 396, E-14071 Córdoba  
**Telephone:** +34 57 21 80 22  
**Fax:** +34 57 21 10 11  
**email:** [otri@uco.es](mailto:otri@uco.es)

**Contact:** Mr Manuel Pineda

**Name:** **Plan Andaluz de Investigación**

**Address:** Dirección General de Universidades e Investigación, Consejería de Educación y Ciencia, Av. República Argentina 23, E-41071 Sevilla

**Telephone:** +34 5 45 58 400

**Fax:** +34 5 45 58 459

**Contact:** Mr José L Pino

### *3.15 Sweden*

#### **3.15.1 A Brief Background to the Industry**

Sweden, with its strong industrial, high-tech background, has a good base for the development of its biotechnology sector. In 1986, the government recognised biotech R&D as one of the three top technical priority areas. In 1991 total public R&D spending reached 2.5% of GDP.

Biotechnology research is supported from various different sources, ranging from the government to university research groups and to specialised independent research institutes.

Development of technology for the commercial world is completely supported by industry.

Under the Nordic Fund for Technology and Industrial Development, Sweden is collaborating with other Nordic countries and anticipates working closely with Denmark.

The strengths of the Swedish industry lie in bioprocess equipment, separation and hybridoma technology, medical devices and biomedical applications. Recently, the pharmaceutical industry has expanded its involvement and several science parks have attracted foreign companies. In 1992 the government set up a Venture Capital Companies scheme (VCC) which in 1994 raised ECU 20m. There is a good mixture of large and small firms in the industry.

There has been several technology transfer centres created to help link university research departments to industry. The Centre for Life Sciences in the Novum Park at Huddinge is one. The Karolinska Institute at Stockholm is another. The Biomedical Centre at Uppsala and the Chemical Centre at Lund are two more.

#### **3.15.2 Current Actions and Programmes**

The Swedish Natural Science Research Council (NFR) estimated that in 1994 total public and private spending on biotech and biomedical research was ECU 170m. The estimate for 1996 is ECU 47m. The funding goes directly from the research councils and faculties to the research groups. Several foundations for research have been formed recently to strengthen basic biotechnology as well as some specialised areas. Structural biology, neurobiology, immunology and plant and animal biotech receive the majority of funding at present. The Strategic Research



### 3.15.4 Support Organisations/Contacts

**Name** NUTEK (National Board for Industrial and Technical Development)  
**Address** S-10387 Stockholm, Sweden  
**Telephone** +46 8 681 9368  
**Fax** +46 8 19 9280  
**Contact:** Dr Magdalena Ehrstrom

**Name** NFR (Swedish Natural Science Research Council)  
**Address** PO Box 7142, S-103 87, Stockholm, Sweden  
**Telephone** + 46 8 454 4252  
**Fax** + 46 8 454 4250  
**Email** [mats@nfr.se](mailto:mats@nfr.se)  
**Contact:** Dr Mats Johnsson

**Name** University of Umea  
**Address** Department of Microbiology, S-90187 Umea, Sweden  
**Telephone** + 46 90 176751  
**Fax** + 46 90 772630  
**Contact:** Prof Kerstin Straby

**Name** Institute of Food and Biotechnology (SIK)  
**Address** PO Box 5401, S-40229, Goteberg / IDEON, S-223 70 Lund  
**Telephone** + 46 31 35 5600 / +46 46 16 8820  
**Fax** + 46 31 83 3782 / +46 46 18 8765  
**Contact:** Mr Guno Haska, Mr Magnus Glad

**Name** TFR (Swedish Research Council for Engineering Sciences)  
**Address** Box 7136, S-103 87 Stockholm, Sweden  
**Telephone** + 46 8 454 4170  
**Fax** + 46 8 454 4180  
**Email** [info@trf.se](mailto:info@trf.se)

**Name** Euro Info Centre Nutek  
**Address** Lijeholmsvägen, 32, S-117 86, Stockholm  
**Telephone** 46 868 195 00  
**Fax** 46 874 440 45  
**Email** [eic@nutek.se](mailto:eic@nutek.se)  
**Contact:** Ms Maria Olofsson

**Name** Euro Info Centre West Sweden, Trade and Industry Development Agency in Göteborg  
**Address** Norra Hamngatan, 14, S-411 14, Göteborg  
**Telephone** 46 316 124 18  
**Fax** 46 316 124 01  
**Email** [ingrid\\_gunnarsson@westsweden.se](mailto:ingrid_gunnarsson@westsweden.se)  
**Contact:** Mr Lars Ekberg

**Name** Euro Info Centre Stockholm  
**Address** Box 12712, Hantverkargatan 2F, S-112 94 Stockholm  
**Telephone** 46 878 580 50  
**Fax** 46 865 001 19  
**Email** [eic@euro\\_stockholm.se](mailto:eic@euro_stockholm.se)  
**Contact:** Mr Christer Dahlberg

### ***3.16 United Kingdom***

#### **3.16.1 A brief Background to the Industry**

The UK Government has adopted policies to facilitate strong links and partnerships between academic and industrial sectors and encourage technology transfer. In the UK, biotechnology has a strong public research base. Scotland, England, Wales and Northern Ireland have Regional Programmes for biotechnology support. Biotechnology in the UK is well supported by the Department of Trade and Industry (DTI). The DTI is committed to improving business competitiveness at home and overseas. Additional activities are supported in Scotland by the Scottish Office Education and Industry Department (SOEID).



**Scope:** BMB is a package of measures recognising the growing economic importance of biotechnology. It is designed to improve UK competitiveness and provide the necessary advice and expertise to transfer technological advances into practical processes.

**Scheme:** **Biotechnology Exploitation Platform (BEP) Challenge**

The BEP Challenge helps to anchor the benefits of publicly funded research in the UK. BEP aims to encourage the effective management of intellectual property by universities and facilitate their commercial exploitation. Any organisation using or exploiting biotechnology is eligible to apply. BEP Challenge applications will be evaluated on the credibility of the business plan, the quality and experience of the team in intellectual property management, the commercial potential of the technology and the extent to which the government support will stimulate new collaborative and intellectual property and leverage from the private sector.

The BEP challenge closed in November 1997 and there is no further funding available at the present.

**Funding:** Maximum of 50% costs (up to £250,000) from the DTI which must be matched from non public sector funds. BEPs must be self financing within four years.

**Contact:**

BEP Challenge Secretariat	BMB Helpline
Biotechnology Directorate	PO Box 83
DTI, Room 116	Didcot
151 Buckingham Palace Road	Oxon OX11 0TJ
London SW1W 9SS	Tel: +44 800 432100
	Fax: +44 1235 432997

**Programme:** **Biotechnology Mentoring and Incubators (BMI) Challenge**

The BMI Challenge aims to encourage intermediaries to address the management and business skills required by emerging biotechnology companies and to encourage the provision of incubators and specialist business mentoring services to help young biotechnology companies grow. Organisations may apply individually or on a collaborative basis. Applications will be judged on their contribution to the growth of the British biotechnology sector, the degree of innovation and the wider benefits.

**Funding:** Under the three year initiative, up to £5 million will be made available. BMI Challenge winners will be offered up to £500,000 towards the cost of a demonstrator project.

**Contact:**

BMI Challenge Secretariat

Biotechnology Directorate

DTI, Room 1.092

151 Buckingham Palace Road

London SW1W 9SS

**Programme:** **Small Firms Merit Award for Science and Technology (SMART)**

**Sponsor** Department of Trade & Industry

**Scope:** The SMART scheme helps SMEs and individuals to research, design and develop technologically innovative products and processes for the national benefit.

The SMART scheme is now open only to companies in England. Different arrangements exist in Scotland, Wales and Northern Ireland.



**Funding:** SMART provides funding of 75% of project costs, up to a maximum of £45,000 to assist in technical and commercial feasibility studies and 30% to help the development of technological products. Companies may apply for SMART at either stage of a project, and the maximum grant available for one applicant is ECU 200,000.

For feasibility studies, companies must have fewer than 50 employees, annual turnover of less than ECU 7 million, and a balance sheet of less than ECU 5 million.

For development projects, companies must have fewer than 250 employees, annual turnover of less than ECU 40 million, and a balance sheet of less than ECU27 million.

**Contact:** Local Government Office or local Business Link

**Programme:** **Foresight Challenge**

**Sponsor** Department of Trade & Industry

**Scope:** Stimulates partnerships between science and business to increase wealth creation and the quality of life. Challenge projects will be assessed on a competitive basis and those which best meet the Challenge criteria will be made the subject of Challenge Awards. Bidders are urged to consider the use to which project outputs can be put in order to serve the objectives of the Challenge Fund.

Challenge partnerships must involve one member from the science base and one from private sector business.

**Funding:** With a maximum of £4 million, grants of 50% of costs are available except for projects involving training. There is no limit on the size of project eligible for support. The main emphasis will be on helping resource projects with a total annual project cost within the range of £1-2 million over the three years 1996-1999.

**Contact:** Colin Bailey                      Chemicals & Biotechnology Directorate      Tel: +44 171 215 2914  
DTI  
151 Buckingham Palace Road                      Fax: +44 171 215 1379  
London SW1W 9SS

**Programme:** **SME Scottish Lowlands (1994-99)**

**Sponsor** DG XVI, national and private

**Scope:** This programme is designed to implement the SME Community Initiative (1994-1999) and to contribute to the economic development of Scotland's Lowlands region. It aims to help SMEs in the region to adapt to the requirements of the single market and boost their international competitiveness. The emphasis of the measures in the programme is on SME interchange and co-operation.

**Funding:** The Community's co-financing amounts to 43.2% of the total investment, with the remainder being met by national and regional authorities and the private sector. 91.94% of the Community funding comes from ERDF and 8.06% comes from ESF.

**Contact:** Elizabeth Williamson                      SODD    Tel: + 44 131 244 0736  
  
Victoria Quay  
  
Edinburgh EH6 6QQ

### *Technology and Knowledge Transfer Programmes*

**Programme:** **The Carrier Technology Programme (CTP)**

- Sponsor** Department of Trade & Industry
- Scope:** CTP is designed to encourage a wider diffusion and adoption of technology in the process industries. It transfers technology used in one industry or type of company to others where it is new and represents an extension of best practice. All UK companies are eligible to apply but collaboration must include at least two independent research organisations.
- Funding:** Grants are set at 50% of eligible costs
- Contact:** Steve Flynn      Engineering Industries Directorate      Tel: +44 171 215 2980  
DTI  
151 Buckingham Palace Road      Fax: +44 171 215 1461  
London SW1W 9SS
- Programme:** **The Teaching Company Scheme (TCS)**
- Sponsor** Department of Trade & Industry
- Scope:** TCS enables firms to take advantage of the wealth of scientific, engineering, technological and business management skills and knowledge available in universities. Each TCS programme involves one or more high quality graduate working in a company for two years on a project which is central to the company's needs. They are jointly supervised by academics and industrialists. Over 70% of current programmes are with SMEs.
- Funding:** Part funded by means of a government grant to the university partner, the company also contributes to the direct costs of the programme. SMEs will generally contribute about 30% of direct costs.
- Contact:** Jacqui Long      Management Best Practice Directorate      Tel: +44 171 215 3867  
1 Victoria Street      Fax: +44 171 215 3933  
London SW1H 0ET
- Programme:** **College Business Partnership (CBP)**
- Sponsor** Department of Trade & Industry
- Scope:** An initiative based on the same principles and concepts as TCS but primarily involves further education colleges in partnerships with SMEs. Graduates of HNC/HNDs undertake year long projects involving technology which is both relevant and appropriate to the SME in which they work.
- Funding:** Each project is part supported by a DTI grant to the college, whilst the company contributes at least £6,500 to direct costs.
- Contact:** Elizabeth Dumbrell      Management Best Practice Directorate      Tel: +44 171 215 3871  
1 Victoria Street      Fax: +44 171 215 3933  
London SW1H 0ET
- Programme:** **Shell Technology Enterprise Programme (STEP)**
- Sponsor** Department of Trade & Industry
- Scope:** STEP is a Shell UK Ltd national placement scheme for undergraduates which is part funded by DTI. It aims to encourage SMEs to consider employing graduates and to provide



**Telephone:** +44 171 276 8187

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**NOTE : For a complete listing of Euro Info Centres, please contact DGXXIII**

**Fax : + 32 2 295 7335**

**Name:** Euro Info Centre Westminster

**Address:** London Chamber of Industry, 33, Queen Street, EC4R 1AP London.

**Telephone:** + 44 171 489 1992

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**Contact:** Ms Beth Raney Cucala

**Name:** The Ministry of Agriculture, Fisheries and Food (MAFF)

**Address:** Refer to Regional Service Centres

**Email:** [webmaster@info.maff.gov.uk](mailto:webmaster@info.maff.gov.uk)

#### MAFF Regional Service Centres

Region	Address	Tel & Fax
Anglia	Block b, Government Buildings	Tel: +44 1223 462727
	Brooklands Avenue, Cambridge CB2 2DR	Fax: +44 1223 455652
East Midlands	Block 7, Chalfont Drive, Nottingham NG8 3SN	Tel: +44 115 9291191
		Fax: +44 115 9294886
Northern	Eden Bridge House, Lowther Street, Carlisle, Cumbria CA3 9DX	Tel: +44 1228 23400
		Fax: +44 1228 23400, ext. 468
North East	Government Buildings, Crosby Road, Northallerton, North Yorkshire DL6 1AD	Tel: +44 1609 773751
		Fax: +44 1609 780 179
North Mercia	Berkeley Towers, Crewe, CW2 6PT	Tel: +44 1270 69211
		Fax: +44 1270 669494
South East	Block A, Government Buildings, Coley Park, Reading RG1 6DT	Tel: +44 118 958 1222
		Fax: +44 118 939 2399
South Mercia	Block C, Government Buildings, Whittington Road, Worcester, WT5 2LQ	Tel: +44 1905 763355
		Fax: +44 1905 763180
South West	Pydar House, Pydar Street, Truro, TR1 2XD	Tel: +44 1872 73191



**Contact:** Mr. Brian Meredith

**Name:** **Welsh Development Agency**

**Address:** Technology Transfer Group, Principality House, The Friary, Cardiff CF1 4AE

**Telephone:** +44 1222 828 734

**Fax:** +44 1222 640 030

**Contact:** Jennifer Clark

**Name:** **Medical Research Council (MRC)**

**Address:** Research Business Group, MRC, 20 Park Crescent, London S1N 4AL

**Telephone:** +44 171 636 5422

**Fax:** +44 171 436 6179

**Email** [rga.group@headoffice.mrc.ac.uk](mailto:rga.group@headoffice.mrc.ac.uk)

**Name:** **Natural Environment Research Council (NERC)**

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**Telephone:** +44 1793 411500

**Fax:** +44 1793 411 501

**Email** [webmaster@nerc.ac.uk](mailto:webmaster@nerc.ac.uk)

**Name:** **Biotechnology and Biological Sciences Research Council (BBSRC)**

**Address:** Polaris House, North Star Avenue, Swindon, SW2 1UH

**Telephone:** +44 1793 413 200

**Fax:** +44 1793 413 201

**Contact** Dr D Yarrow

**Name:** **BioIndustry Association (BIA)**

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**Email** [admin@bioindustry.org.uk](mailto:admin@bioindustry.org.uk)

**Contact:** Stewart Clode

**Name:** Association of British Pharmaceutical Industry (ABPI)  
**Address:** 12 Whitehall London SW1A 2DY  
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**Fax:** +44 171 747 1411  
**Email:** [abpi@abpi.org.uk](mailto:abpi@abpi.org.uk)

*Northern Ireland*

**NOTE: For a complete listing of Euro Info Centres, please contact DGXXII**

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**Name:** Euro Info Centre  
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**Telephone:** + 44 1232 491031  
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**Contact:** Ms. Eleanor Butterwick

**Name:** Centre for Innovation In Biotechnology - established in 1995  
**Address:** University of Ulster, Cromore Road, Coleraine BT52 1SA  
**Telephone:** + 44 1265 324 501  
**Fax:** + 44 1265 324 906  
**Email:** [j.carmichael@ulst.ca.uk](mailto:j.carmichael@ulst.ca.uk)  
**Contact:** Dr Jeremy Carmichael

**Name:** Environment and Heritage Service-Northern Ireland (EHS) - established 1996  
**Address:** Natural Heritage, Commonwealth House, 35 Castle Street, Belfast BT1 1GU  
**Telephone:** + 44 1232 251 477  
**Fax:** + 44 1232 546 660  
**Contact:** Mr RC Martin

**Name:** Industrial Development Board  
**Address:** IDB House, 64 Chichester Street, Belfast BT1 4JX  
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**Fax:** + 44 1232 545 000

**Contact:** Mr Bruce Robinson

**Name:** **Industrial Research and Technology Unit**

**Address:** Netherleigh, Massey Avenue, Belfast BT4 2JP

**Telephone:** + 44 1232 529 533

**Fax:** + 44 1232 529 548

**Contact:** Ms Dorenda McKay  
Alan Boyd

**Name:** **LEDU - the Small Business Agency for Northern Ireland**

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**Telephone:** + 44 1232 491 031

**Fax:** + 44 1232 691 432

**Email:** [ledu@nics.gov.uk](mailto:ledu@nics.gov.uk)

**Contact:** Ms Una Donnelly

## APPENDICES

### *Appendix 1. State of play of legislation in biotechnology*

#### **A - Legislation in force**

##### **I - Horizontal legislation**

1) Council Directive 90/219/EEC on the contained use of genetically modified micro-organisms (O.J.L 117 of 08.05.1991, p1).

2) Council Directive 90/220/EEC on the deliberate release into the environment of genetically modified organisms (O.J.L 117 of 08.05.1990, p15), as amended by Commission Directive 97/35, which adapts this Directive to technical progress for the second time (OJL 189/72 of 27.06.97).

3) Council Directive 90/679 on the protection of workers from the risks related to exposure to biological agents at work (O.J.L 374 of 31.12.1990, p1); as amended by Council Directive 93/88/EEC (O.J.L 268 of 29.10.1993, p7), as amended by Commission Directive 95/30/EEC (OJL 155 of 06.07.95, p41).

4) Council Directives 94/55 et 96/49 on the approximation of the laws of Member States with



regard to the transport of dangerous goods by road (94/55 ; O.J.L 319 of 12.12.1994, p.7) and by rail (96/49 ; O.J.L. 235 of 17.09.96, p25).

## **II - Vertical Legislation**

- 1) Council Directive 93/114/EEC of 14 December 1993 amending Directive 70/524/EEC concerning the additives in feedingstuffs (O.J.L 224 of 31.12.93 p.24).
- 2) Commission Directive 94/40/EC of 22 July 1994 amending Council Directive 87/153/EEC fixing guidelines for the assessment of additives in animal production (O.J.L 208 of 11.08.94 p15).
- 3) Council Regulation 2309/93/EEC of 22 July 1993 laying down Community procedures for the authorisation and supervision of medicinal products for human and veterinary use and establishing a European Agency for the Evaluation of Medicinal Products (O.J.L 214 of 24.08.1993, p.1).
- 4) Regulation 258/97 of the European Parliament and of the Council of 27 January 1997 concerning novel foods and novel food ingredients (O.J.L 043 of 14.02.1997 p.1).
- 5) Regulation 2232/96 of the European Parliament and of the Council of 28 October 1996 laying down a Community procedure for flavouring substances used or intended for use in or on foodstuffs (O.J.L 299/1 of 23.11.96).

## **III - Intellectual property**

Council Regulation 2100/94/EEC of 27 July 1994 on Community Plant Variety Rights (O.J.L 227 of 01.09.1994 p.1).

## **IV - Other Acts**

Regulation (EC) n° 1813/97 of the European Commission of 19 September 1997 concerning the compulsory indication on the labelling of certain foodstuffs produced from genetically modified organisms of particulars other than those provided for in Directive 79/112/EEC (O.J.L 257/7 of 20.9.97).

Council Regulation (EC) n° 1139/98 of 26 May 1998 concerning the compulsory indication on the labelling of certain foodstuffs produced from genetically modified organisms of particulars other than those provided for in Directive 79/112/EEC (O.J.L 159/4 of 03.06.98).

## **B - Texts under discussion**

### **I - Horizontal Legislation**

1) Proposal (presented by the Commission) for a Council Directive amending Directive 90/219/EEC on the contained use of genetically modified micro-organisms - COM (95) 640 final of 06.12.1995. (Common position adopted by the Council on 16 December 1997)

2) Proposal (presented by the Commission) for a Directive of the European Parliament and of the Council amending Council Directive 90/220/EEC on the deliberate release into the environment of genetically modified organisms - COM (98) 85 final of 23.02.1998.

## II - Vertical Legislation

1) Proposal for a Council Directive amending Directives 66/400/EEC, 66/401/EEC, 66/402/EEC, 66/403/EEC, 69/208/EEC, 70/457/EEC and 70/458/EEC on the marketing of beet seed, fodder plant seed, cereal seed, seed potatoes, seed of oil and fibre plants and vegetable seed and on the common catalogue of varieties of agricultural plant species - COM (93) 598 final of 26.11.93.

## III - Intellectual property

Proposal - COM (95) 661 final - for a European Parliament and Council Directive on the legal protection of biotechnological inventions. (Common position (EC) n° 19/98 adopted by the Council on the 26 February 1998)

### C – Other relevant texts:

Commission recommendation of 29 July 1997 concerning the scientific aspects and the presentation of information necessary to support applications for the placing on the market of novel foods and novel food ingredients and the preparation of initial assessment reports under regulation (EC) N° 258/97 of the European Parliament and of the Council.

OJL 253 of 16 September 1997.

### *Appendix 2. National EU and Regulatory Authorities*

#### **Austria**

**Organisation:** Bundesministerium Für Gesundheit  
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**Telephone:** + 43 1 31 71 17 48 26

**Fax:** + 43 1 31 71 37 952

**Organisation:** Federal Environmental Agency

**Contact Name:** Mr Helmut Gaugitsch

**Address:** Umweltbundesamt, Spittelauer Laende 5, A-1090 Vienna

**Telephone:** + 43 1 31 30 45 66

**Fax:** + 43 1 31 30 44 00

**Organisation :** Bundesstaatliche Anstalt für experim-pharmakologische und Balneologische Untersuchungen

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**Fax:** + 43 17 14 92 22

**Organisation:** Bundesministerium für Arbeit und Soziales

**Contact Name:** Alice Schmatzberger

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**Fax:** + 43 1 71 10 02 190

## Belgium

**Organisation:** Institute of Hygiene and Epidemiology Biosafety RDNA and Biotech

**Contact Name:** Dr William Moens

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**Fax:** + 32 2/6 42 52 92

**Organisation:** Ministère de la Santé Publique et de l'Environnement Inspection Générale de la Pharmacie, Secrétariat de la Commission de Médicaments

**Address:** Cité Administrative de l'Etat, Quartier Vésale, B-1010 Brussels

**Telephone:** + 32 2 210 48 96

**Fax:** + 32 2 210 48 80

**Organisation:** Ministère de l'Agriculture  
**Contact Name:** Dr Eric Liegeois  
**Address:** Manhattan Centre 9eme Etage, Avenue Boulevard 21, B-1210  
**Telephone:** + 32 2 208 32 11  
**Fax:** + 32 2 206 72 11

**Organisation:** Ministère de l'Emploi et du Travail  
**Contact Name:** Jozef Costermans  
**Address:** 51 rue Belliard, B-1040 Brussels  
**Telephone:** + 32 2 233 46 02  
**Fax:** + 32 2 233 44 88

**Organisation:** Institut Bruxellois de Gestion et de l'Environnement - Brussels - Capital Region  
**Contact Name:** Mr D Robin  
**Address:** Gulledele 100, B-1200 Brussels  
**Telephone:** +32 2 5 38 99 22  
**Fax:** +32 2 538 69 46

**Organisation:** Aminal - Flemish Region  
**Contact Name:** Mr G Saelemakers  
**Address:** Belliardstraat 14-18, B-1040 Brussels  
**Telephone:** + 32 25 07 67 02  
**Fax:** + 32 25 07 67 05

**Organisation:** DGRNE-DPP - Wallonian Region  
**Contact Name:** Dr L Nick  
**Address:** Avenue de Prince de Liège 15, B-5100 Namur  
**Telephone:** + 32 81 32 57 68  
**Fax:** + 32 81 32 59 82

**Denmark**

**Organisation:** Working Environment Service  
**Contact Names:** Anders Christensen/Susan Cowan  
**Address:** Landskronagade 33, DK-2100 Copenhagen  
**Telephone:** + 45 39 15 20 00  
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**Organisation:** Danish Environmental Protection Agency, Biotechnology  
**Contact Name:** Mr Albert S Welinder  
**Address:** Strandgade 29, DK-1410 Copenhagen K  
**Telephone:** + 45 32 66 01 011  
**Fax:** + 45 32 66 04 79

**Organisation:** Sundhedsstyrelsen, Laegemiddelafdelingen  
**Address:** Frederickssundsvej 387, DK-2700 Bronshoj  
**Telephone:** + 45 44 88 91 11  
**Fax:** + 45 44 94 02 37

**Organisation:** Danish Environmental Protection Agency, Biotechnology  
**Contact Name:** Ms Inge-Marie Lorenzen  
**Address:** Strandgade 29, DK-1401 Copenhagen K

#### Finland

**Organisation:** National Agency for Medicines  
**Address:** Marketing Authorisations, Mannerheimintie 166, PO Box 55, FIN-00301 Helsinki  
**Telephone:** + 358 047441  
**Fax:** + 358 04744525

**Organisation:** Ministry of Environment  
**Contact Name:** Ms Tulia Talsi  
**Address:** PO Box 3 99, SF-00121 Helsinki  
**Telephone:** + 358 01 99 11  
**Fax:** + 358 1 99 14 99

**Organisation:** Ministry of Social Affairs and Health  
**Contact Names:** Heikki Loppi/Matti Lamberg  
**Address:** PB 197, FI-00531 Helsinki  
**Telephone:** + 358 9 160 4342  
**Fax:** + 358 9 160 9862

**Organisation:** Ministry of Labour  
**Contact Names:** Asko Aalto/Ilona Valtanen  
**Address:** Box 356, FI-33101 Tampere  
**Telephone:** + 358 3 2608486

**Organisation:** Jordbruksverket  
**Contact Name:** Mr Evert Jonsson  
**Address:** Vallgatan 8, S-55182 Joenkeoping

**Organisation:** Sosiaako-Ja Terveysministerio  
**Contact Name:** Ms Hannele Leiwo  
**Address:** Geenitekniikan Lautakunta Pl 197, Siltasaarenkaty 18, 9.Krs, SF-00531 Helsinki

## France

**Organisation:** Agence du Médicament  
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**Telephone:** + 33 1 48 13 20 00  
**Fax:** + 33 1 48 24 75/48 13 20 90

### *Mutual recognition and centralised procedures*

**Telephone:** + 33 1 48 13 21 01  
**Fax:** + 33 1 48 13 24 96

### *Regulatory affairs and national applications*

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**Fax:** + 33 1 48 13 24 75

**Organisation:** Ministère de L'Agriculture et de la Reche  
**Contact Name:** M. Eric Schoonejans  
**Address:** 251, Rue de Vaugirard, F-75732, Paris Cedex.  
**Telephone:** + 33 1/49 55 58 81  
**Fax:** + 33 1 49 55 59 48

**Organisation:** Ministère de L'Environnement-Deppr, Agriculture-Agro-Alimentaire  
**Contact Name:** M. Hubert Calamy  
**Address:** Avenue de Segur 20, F-75302 Paris 07 SP  
**Telephone:** + 33 1 42 19 14 59  
**Fax:** + 33 1/42 19 14 64

**Organisation:** INRS  
**Contact Names:** Annie Leprince/Dominique Abiteboul  
**Address:** 30 rue Olivier Noyer, F-75680 Paris Cedex 14  
**Telephone:** + 33 1 40 44 30 60  
**Fax:** + 33 1 40 44 24 12

**Organisation:** Ministère Emploi et Solidarité  
**Contact Name:** M Hervié Janiaut  
**Address:** 20 bis rue d'Estrées, DRT/CT4, F-75007 Paris 07  
**Telephone:** + 33 1 44 38 26 69

## Germany

**Organisation:** Robert Koch Institutes des Bundesgesundheitsamtes Fachbereich Genetick, Gentechnik – Main Competent Authority  
**Contact Name:** Dr Hans-Joerg Buhk  
**Address:** Postach 34, D-13161 Berlin  
**Telephone:** + 49 30 45 47 30 00  
**Fax:** + 49 30 45 47 30 60

**Organisation:** Biologische Bundesanstalt - Co-responsible Authorities  
**Contact Name:** Dr Joachim Schiemann  
**Address:** Messeweg 11/12, D-38104 Braunschweig  
**Telephone:** + 49 53 12 99 38 16  
**Fax:** + 49 53 12 99 30 13

**Organisation:** Umweltbundesamt Einvernehmensstelle Gentechnik  
**Contact Name:** Ms Ingrid Noeh  
**Address:** Postfach 33 00 22, D-14191 Berlin  
**Telephone:** + 49 30 89 03 32 50  
**Fax:** + 49 30 89 03 33 80

**Organisation:** Bundesforschungsanstalt fuer Viruskarnkeiten der Tiere  
**Address:** Paul-Ehrlich-Str 28, D-7400 Tuebingen  
**Telephone:** + 49 70 71 96 70  
**Fax:** + 49 70 71 97 73 03

**Organisation:** Bundesamt für Sera und Impfstoffe  
**Address:** Paul-Ehrlich-Institut, Paul-Ehrlichstrasse 51-29, D-6225 Langen  
**Telephone:** + 49 6103 770  
**Fax:** + 49 6103 77 123

**Organisation:** Bundesanstalt für Arbeitsschutz und Arbeitsmedizin  
**Contact Name:** Rüdiger Pipke  
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**Telephone:** + 49 231 9071 292  
**Fax:** + 49 231 9071 454

**Organisation:** Bundesministerium für Arbeit und Sozialordnung Gefahrstoffe, Chemikaliensicherheit, Bio- und Gentechnik Dienstlich  
**Contact Name:** Dr Astrid Smola  
**Address:** Am Burgweiher 56, D-53123 Bonn



**Telephone** + 49 228 527 25 83  
:

**Fax:** + 49 228 527 29 58

**Organisation:** Bundesinstitut für Arzneimittel und Medizinprodukte (For Dossier)

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**Address:** Seestrasse 10, D-13353 Berlin (Subsequent correspondence)

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**Fax:** + 49 30 4502 1207

**Organisation:** BDP: (Ass of German Plant Breeders)

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**Telephone:** + 49 228 98 581-22

**Fax:** +49 228 69 26 02

**Greece**

**Organisation:** EOF (National Drug Organisation)

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**Telephone:** + 30 1 6545193/6547004

**Fax:** + 30 1 654 55 35/654 70 04/654 72 02

**Organisation:** University of Athens Medical Schools

**Contact Name:** Ms Evangelia Kaklamani

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**Telephone:** + 301 77 94 731

**Fax:** + 301 72 35 010

**Organisation:** Ministry of the Environment

**Contact Name:** Mr George Alvanopoulos

**Address:** 36 Trikalon Street, GR-11526 Athens, Ampelokipi

**Ireland**

**Organisation:** Irish Medicines Board  
**Address:** Charles Lucas House, 63-64 Adelaide Road, Dublin 2  
**Telephone:** + 353 1 676 4971/7  
**Fax:** + 353 1 676 7836

**Organisation:** Health and Safety Authority  
**Contact Name:** Mr Dan Murphy  
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**Telephone:** + 353 1 662 0400  
**Fax:** + 353 1 662 0411

**Organisation:** Department of Environment  
**Contact Name:** Mr Owen Ryan  
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**Fax:** + 353 1 874 27 10

**Organisation:** The Environmental Protection Agency  
**Contact Name:** Mr Gerry Carty  
**Address:** Ardavan, IRL - Co Wexford  
**Telephone:** + 353 53/4 71 20  
**Fax:** + 353 53/4 71 19

**Organisation:** The Environmental Protection Agency Headquarters  
**Contact Name:** Dr Thomas McLoughlin  
**Address:** Ardavan, IRL - Co Wexford

## Italy

**Organisation:** Ministero della Sanità, Direzione Generale Savizio Farmaceutico  
**Address:** Viale della Civiltà Romana 7, 1-00144 Rome EUR  
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**Organisation:** Ministero Della Sanità  
**Contact Name:** Dr Luigi Binetti  
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**Organisation:** Istitute Superior di Sanità  
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**Organisation:** Ministero della Sanità  
**Contact Name:** Dr Giuseppe Battaglino  
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#### Luxembourg

**Organisation:** Ministère de la Santé, Division de la Pharamcie et des Médicaments  
**Contact:** Mrs Backes-Lies  
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**Telephone:** + 352 478 55 90  
**Fax:** + 352 422 44 58  
**Telex:** 2546 SANTE LU

**Organisation:** Inspection du Travail et des Mines  
**Contact:** Mr Paul Weber  
**Address:** 26 rue Zithe, L-2010 Luxembourg  
**Telephone:** + 352 47 86 154  
**Fax:** + 352 49 14 47

#### Netherlands

**Organisation:** College ter beoordeling van geneesmiddelen (Meidinces Evaluation Board)  
**Address:** Postbus 5811, Sir Winston Churchillaan 362, NL-2280 HV Rijswijk  
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**Organisation:** Ministry of Social Affairs and Employment, Directorate Working Conditions  
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**Organisation:** VROM (Ministry of Allocation, Spacial Planning and Environmental Management)  
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**Telephone:** +31 70 339 48 93  
**Fax:** +31 70 339 48 93

**Organisation:** NIABA  
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**Telephone:** +31 70 32 70 464  
**Fax:** +31 70 32 05 765  
**email:** [niaba@s4all.nl](mailto:niaba@s4all.nl)

**Organisation:** Ministry of Housing, SUS/655  
**Contact:** Dr Peter van Der Meer  
**Address:** PO Box 3 09 45, NL-2500 GX The Hague  
**Telephone:** + 31 703 39 48 93  
**Fax:** + 31 703 39 12 97

**Organisation:** Instituto Nacional da Farmácia e do Medicamento (Infarmed)  
**Address:** Parque de Saúde de Lisboa, Av do Brasil 53, PO-1700 Lisbon  
**Telephone:** + 351 1 790 8500/795 7836  
**Fax:** + 351 1 795 9116

**Portugal****Organisation:** Instituto Nacional de Saúde**Contact:** Mme Maria Teresa Paixao**Address:** P-Lisbon**Telephone:** + 351 659 2222**Fax:** + 351 659 2155**Organisation:** Autoridade Competente - DGQA, Direccao-Geral da Qualidade do Ambiente**Contact:** Mr Jorge Nascimento-. Fernandes**Address:** Avenida Alm Gago Countinho 30-2<sup>o</sup>, P-1000 Lisbon**Telephone:** + 351 1/8 47 10 22**Fax:** + 351 1/8 47 30 01**Spain****Organisatio  
n:** Ministerio de Sanidad y Consumo**Address:** Direccìon General de Farmacía y Productos Sanitarios, Paseo del Prado 18-20, E-28014 Madrid**Fax:** + 34 1 596 1547/596 1548**Organisation:** Secretaria General de Medio Ambiente**Contact:** Ms Eliza Barahona**Address:** Paseo de la Castellana 67, E-28071 Madrid**Telephone:** + 34 15 97 74 88**Fax:** + 34 15 97 85 13**Organisation:** Jefe de Servicio de Estudios e Investigación**Contact:** D Jerónimo Maqueda Blasco**Organisation:** Instituto Nacional de Seguridad e Higiene**Contact:** Carmen Ramos Carrillo**Address:** Torrelaguna 73, E-Madrid**Telephone:** + 34 1 40 37 000**Fax:** + 34 1 40 30 050

**Sweden****Organisation:** The Medical Products Agency (Delivery of the Dossier)**Address:** Husargatan 8, B 26, S-751 03 Uppsala**Telephone:** + 46 18 17 46 06**Organisation:** The Medical Products Agency (Subsequent correspondence)**Address:** PO Box 26, S-751 03 Uppsala**Telephone:** + 46 18 17 46 00**Fax:** + 46 18 54 85 66**Organisation:** Swedish Board of Agriculture**Contact:** Mr Carl Johan Liden**Address:** S-55182 Joenköping**Telephone:** + 46 36/15 50 00**Fax:** + 46 36/19 05 46**Organisation:** Karolinska Institutet**Contact:** Roland Möllby**Address:** MTC, S-17177 Stockholm**Telephone:** + 46 8 728 7175**Fax:** + 46 8 331 547**Organisation:** National Board of Occupational Safety and Health**Contact:** Anna Malm**Address:** Arbetarskyddsstyrelsen, S-17184 Solna**Telephone:** + 46 8 730 92 58**United Kingdom****Organisation:** European Agency for the Evaluation of Medicinal Products (known as the European Medicines Evaluation Agency [EMA])**Address:** 7 Westferry Circus, Canary Wharf, London E14 4HB**Telephone:** + 44 171 418 8400

:

**Fax:** + 44 171 418 8551

**Email:** [mail@emea.eudra.org](mailto:mail@emea.eudra.org)

**Web Site:** <http://www.eudra.org/emea.html>

**Organisation:** Medicines Control Agency, Registration Section (Delivery of the Dossier)

**Address:** Block 3, Spur K North, Government Buildings, Kingston By-Pass Road, Surbiton, Surrey KT6 5QN

**Telephone:** + 44 181 398 9283

**Organisation:** Medicines Control Agency (Written response data)

**Address:** Room 1425, Market Towers, 1 Nine Elms Lane, London SW8 5NQ

**Telephone:** + 44 171 273 0491/0451

**Fax:** + 44 171 273 0493

**Organisation:** Medicines Control Agency (Variations)

**Address:** Room 1115, Market Towers, 1 Nine Elms Lane, London SE8 5NQ

**Telephone:** + 44 171 273 0308

**Fax:** + 44 171 273 0293

**Organisation:** Medicines Control Agency (Renewals)

**Address:** Room 1112, Market Towers, 1 Nine Elms Lane, London SW8 5NQ

**Telephone:** + 44 171 273 0337

**Fax:** + 44 171 273 0293

**Organisation:** Health & Safety Executive

**Contact:** Dr Stuart Smith

**Address:** 7th Floor, Room 7.02, Rose Court, Southwark Bridge, London SE1 9HS

**Telephone:** + 44 717 17 62 98

**Fax:** + 44 717 17 61 99

**Organisation:** Department of the Environment, Toxic Substances Division

**Contact:** Dr Helen Marquard  
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**Organisation:** Health and Safety Executive  
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**Address:** Rose Court, Southwark Bridge, London SE1 9HS  
**Telephone:** + 44 171 717 6230  
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**Organisation:** Health and Safety Executive  
**Contact:** Mr John Newbold  
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**Fax:** + 44 151 922 7918

**Organisation:** Department of Health  
**Contact:** Eileen Lawrence  
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*Appendix 3. Primary Contact Points for Patents*

**AUSTRIA**

**Address:** Österreichisches Patentamt Kohlmarkt 8-10, A-1014 Vienna  
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**BELGIUM**



**Organisation:** Office de la Propriété Industrielle auprès du Ministère des affaires économiques  
**Address:** Boulevard E Jacqmain 154, B-1000 Brussels  
**Tel:** +32 2 206 41 11  
**Fax:** +32 2 206 57 50

#### DENMARK

**Organisation:** Patentdirektoratet  
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#### FINLAND

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**Fax:** +358 6 69 39 53 28

#### FRANCE

**Organisation:** Institut National de la Propriété Industrielle (INPI)  
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#### GERMANY

**Organisation:** Deutsches Patentamt  
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**Fax:** +49 89 21 95 22 21

#### GERMANY

**Organisation:** Deutsches Patentamt

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#### GERMANY

**Organisation:** Kanzlei Pünder-Volhard Weber Axter  
**Address:** Pacellistr. 141, 80333 München  
**Contact Name:** Dr Joachim Feldges  
**Tel:** +49 89 216 32 932  
**Fax:** +49 89 216 32 600

#### GREECE

**Organisation:** Organismos Biomichanikis Idioktissias OBI  
**Address:** 5 Pandanassis St, GR-15125 Paradissos, Amaroussio, Athens  
**Tel:** +30 1 68 28 231

#### IRELAND

**Organisation:** The Patents Office  
**Address:** 45 Merrion Square, Dublin 2  
**Tel:** +351 1 661 41 44  
**Fax:** +351 1 676 04 16

#### ITALY

**Organisation:** Ministero Industria Commercio e Artigianato DPPI, Ufficio Italiano Brevetti e Marchi  
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00187 Rome  
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**Fax:** +39 47 05 30 32

#### LUXEMBOURG

**Organisation:** Ministère de l'Economie, Service de la Propriété Intellectuelle

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#### NETHERLANDS

**Organisation:** Netherlands Industrial Property Office  
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**Tel:** +31 70 39 86 655  
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#### PORTUGAL

**Organisation:** Instituto Nacional da Propriedade Industrial (INPI)  
**Address:** Campo das Cebolas, P-1100 Lisboa  
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#### SPAIN

**Organisation:** Oficina Española de Patentes y Marcas  
**Address:** c/Panamá 1, E-28071 Madrid  
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#### SWEDEN

**Organisation:** Patent-och registreringsverket  
**Address:** Box 5055 Stockholm  
**Tel:** +46 8 782 25 00  
**Fax:** +46 8 66 60 286

#### UNITED KINGDOM

**Organisation:** The Patent Office  
**Address:** Cardiff Road, GB-Newport, Gwent NP9 1RH  
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**Fax:** +44 16 33 81 44 44

**UNITED KINGDOM**

**Organisation:** The Patent Office  
**Address:** 25 Southampton Buildings, Chancery Lane, London WC2A 1AY  
**Telephone:** +44 16 33 81 40 00  
**Fax:** +44 16 33 81 44 44

**The European Patent Office**

**Address:** D-80298 München, Erhardtstrasse 27  
**Tel:** +49 89 23 99-0  
**Fax:** +49 89 23 99-4650  
**Web Page:** <http://www.epo.co.at/epo>

**Branches and Sub-Offices of the European Patent Office**

**Organisation:** Département de La Haye  
**Address:** Patentlaan2, Posbbus 5818 NL-2280 HV Rijswijk  
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**Fax:** +31 70 34 03 016

**Organisation:** Agence de Berlin  
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**Second Address::** Gitsheiner Strasse 103, D-10969  
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**Fax:** +49 30 25 901-840

**Organisation:** Agence de Vienne  
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**Tel:** +43 1 52 126-0  
**Fax:** +43 1 52 126-5491

**Appendix 4. Directorates and Units within the European Commission Working on Biotechnology and/or SME Projects**

**Secretariat General**

<b>Directorate/ Unit</b>	<b>Tel/Fax</b>
C (1) Secretariat of the European Group on Ethics in Science and New Technologies.	F 299 45 65
C (1) Secretariat of the Biotechnology Coordination Committee.	F 295 76 37

**DG I External Relations**

<b>Directorate/Unit</b>	<b>Principle Activities</b>	<b>Tel/ Fax</b>
B (1)/ B (2) Relations with North America, Australia and New Zealand	Defence of the EU interests vis-à-vis the US, promotion of EU/US relations through dialogue and negotiation	F 299 22 17
D(3) New technologies	New technologies, intellectual property and public procurement	F 299 20 10
G(2) WTO,OECD, commercial matters with respect to agriculture and fisheries; export credit policy; export promotion	Takes a co-ordinate position concerning trade related aspects of biotechnology	F 299 10 46
M(2) External relations in the research, science, nuclear energy and environmental field		F 296 93 09

**DG II Economic and Financial Affairs**

<b>Directorate/Unit</b>	<b>Principle Activities</b>	<b>Tel/Fax</b>
FOS-A		F + 352 4301 364 39
	Eurotech and JEV initiative	
		T 299 44 04
E(1)		
	Growth and employment initiative and EIF	

E(2) Risk capital and stock exchanges

### DG III Industry

Directorate/Unit	Principle Activities	Tel/Fax
E(1) Foodstuffs legislation	Foodstuffs legislation – Scientific and technical aspects	F 296 09 51
E(2) Food Production and Biotechnology	Co-ordination of all questions of industrial policy, regulation and research related to biotech.	F 296 64 67
E(3) Pharmaceutical products	Pharmaceutical products	F 296 15 20

### DG V Employment, Industrial Relations and Social Affairs

Directorate/Unit	Principle Activities	Tel/Fax
F(4) Industrial accidents and injuries; secretariat of the Advisory Committee on Safety, Hygiene and Health Protection at Work	Protection of workers against the risks related to exposure to biological agents at work, classification of biological agents according to their level of risk of infection	F 293 48 55
F(5) Occupational health and hygiene	Policy relating to Health and safety in the Biotech sector	F +35 2 430 1 332 48

### DG VI Agriculture

Directorate/Unit	Principle Activities	Tel/Fax
B.II(1) Legislation	Legislation relating to crop products and animal nutrition	F 29 5 78 32
B.II(2) Veterinary and	Harmonisation and development of legislation in veterinary medicine and animal husbandry	F 29 6

zootechnical legislation		26
		15
C(2)	Non food uses of agricultural products, analysis of animal feed market, impact of biotechnology in such sectors	F 29
Animal feed, non-food uses, and cereal substitutes		6 60 21
C(3)	Management of problems for sugar, isoglucose and molasses, use of beet and cane for non-food purposes, use of sugar, isoglucose and molasses in the chemical and pharmaceutical industries	F 29
Sugar		5 19 10
H (1)	International affairs concerning agriculture	F 29
GATT, WTO and United States		5 24 16

#### DG VII Transport

Directorate/Unit	Principle Activities	Tel/Fax
B(3)	Co-ordination of safety technology and transport policy and the environment	F 296 84 01
Safety, technology and road transport environment		

#### DGXI Environment, Nuclear Safety and Civil Protection

Directorate/Unit	Principle Activities	Tel/Fax
E(2)	Responsible for Directives 90/219/EEC and 90/220/EEC	F 296 6233
Environmental control of industrial products and biotechnology		
D(4)	Biosafety Protocol negotiation	F 296 95 57
Global aspects of environment		

#### DGXII Science, Research and Development

Directorate/Unit	Contact Name	Principle Activities	Tel/Fax
E(1)	Etienne MAGNIEN	Co-ordination of Biotechnology R&D programmes	T 295 93 47
Biotechnology	<a href="mailto:e.magnien@dg12.cec.be">e.magnien@dg12.cec.be</a>		F 299 18 60
E(1)	Stephane HOGAN	Information officer for BIOTECH II programme	T 296 29 65

Biotechnology	<u>stephane.Hogan@dg12.ec.be</u>		F 299 18 60
E(1)	Philippe de TAXIS DU POËT	Biotechnology research, Entrepreneurship, Industry and Finance	T 295 40 43
Biotechnology	<u>Philippe.de-taxis-du-Poët@dg12.be</u>		F 299 18 60
E(1)	Béatrice LUCARONI	Exploratory awards for SMEs	T 296 22 29
Biotechnology	<u>Beatrice.lucaroni@dg12.cec.be</u>		F 299 18 60
E(2)	Pieter-Jan BOUWMEISTER	Responsible for biotechnology within area 4 of the FAIR programme	T 296 09 12
Agro-industrial research	<u>Pieter.bouwmeister@dg12.cec.be</u>		F 296 43 22
E(2)	Xabier GOENAGA	Contact for SME initiative under the FAIR programme	T 296 14 34
Agro-industrial research			F 296 43 22
E(3)	<u>Alfredo.aguilar-romanillos@dg12.cec.be</u>	Demonstration activities	T 296 14 81
Life Science Demonstration projects			F 299 18 60
E(4)	Umberto BERTAZZONI	Co-ordination of BIOMED 2 SME Initiative	T 296 64 85
Medical Research	<u>u.bertazzoni@dg12.cec.be</u>		F 295 53 65
E(4)	Alain VANVOSSSEL	Information Officer for biomedecine and Health Programme (BIOMED 2)	T 296 25 78
Medical Research	<u>Alain.vanvossel@dg12.ec.be</u>		F 295 53 65
E(5)	José ELIZALDE	Co-ordinates current ethical, social and legal aspects	T 295 7287
Legal and ethical aspects	<u>j.elizalde-perez@dg12.cec.be</u>		F 295 53 65

### DGXIII Telecommunications, Information Market and Exploitation of Research

Directorate/Unit	Principle Activities	Tel/Fax
D(4)	Co-ordination of technology transfer networks	F 293 5071
Innovation and technology transfer		



**DGXV Internal Market and Financial Services**

<b>Directorate/Unit</b>	<b>Principle Activities</b>	<b>Te l/ F ax</b>
E(3) Intellectual and industrial property. Freedom of establishment and freedom to provide services, notably in the regulated professions.	Co-ordinates policy on intellectual and industrial property within the biotechnology sector	F 29 6 17 36

**DGXVI Regional Policy and Cohesion**

<b>Directorate</b>	<b>Principle Activities</b>	<b>Tel/Fax</b>
F(2)	Information and relations with other institutions	F 296 60 03

**DGXXIII Enterprise Policy, Distributive Trades, Tourism and Co-operatives**

<b>Directorate</b>	<b>Principle Activities</b>	<b>Te l/ Fa x</b>
B(3) Improvement of conditions for enterprise and market access	Co-ordinates the accessing of funding for SMEs	F 29 5 21 54
B(2) SME Co-operation and transnational development	Co-operation between SMEs at international and European level	F 29 5 17 40
B(1) Information for businesses (EICs) and relations with other Community networks	Co-ordination of the Euro Info Centres which provide information to businesses and act as 'first stop shops', directing SMEs' requests to the most appropriate source, including other Community networks.	F 29 5 73 35

**Organisation:** Unité Information des Entreprises, Directorate General XXXIII-B/1  
**Address:** Rue d'Arlon 80  
 B-1040 Brussels  
**Fax:** + 32 2 296 1241

### *Appendix 5. Industrial Platforms*

**Name** ACTIP - Animal Cell Technology Industrial Platform

**Contact** Dr Berthold Bödeker (Chairman)

Bayer AG

PH-TO-Biotechnology

Friedrich-Ebert-Strasse 217

D-42096 Wuppertal

Tel: +49 202 36 76 73

Fax: +49 202 36 75 24

Dr Helma Hermans (Secretariat)

Scientific Writing & Consultancy

PO Box 23 161

NL-3001 KD Rotterdam

tel: +31 10 4363 725

fax: +31 10 436 1004

Email: [sciwrco@wirehub.nl](mailto:sciwrco@wirehub.nl)

**Name** BACIP - Bacillus Subtilis Genome Industrial Platform

**Contact** Prof Dr Wim J Quax (Chairman)

Genencor International BV

PO Box 642

NL-2600 AP Delft

Tel: +31 15 279 2268

Fax: +31 15 279 2838

Email: [wquax@genencor.com](mailto:wquax@genencor.com)

**Name** BBP - Biotechnology for Biodiversity Platform

**Contact** Dr. J.C. Reeves (Chairman)

National Institute of Agricultural Botany

Huntingdon Road

GB-CB3 OLE Cambridge

Tel: +44 1223 276 381

Fax: +44 1223 277 602

E-Mail: [jreeves.niab.hr@gtnet.gov.uk](mailto:jreeves.niab.hr@gtnet.gov.uk)

**Name** FAIP - Farm Animal Industrial Platform

<b>Contact</b> Dr Jan WM Merks (Chairman)	Dr. Anne-Marie Neeteson (Secretariat)
Nederlands Varkensstamboek BV	Dilgtweg, 7
PO Box 43	NL-9751 ND Haren
NL-6640 AA Beuningen	
Tel: +31 2467 79 999	Tel: +31 505 34 21 12
Fax: +31 2467 79 800	Fax: +31 505 34 18 99
	E-mail: <a href="mailto:neeteson@uni4nm.jaf.nl">neeteson@uni4nm.jaf.nl</a>

**Name** HAE 2000 – Healthy Aging Europe

<b>Contact</b>		Mr. Jukka Salminitty (Secretariat)
Dr. Hannu Hanhijärvi (Chairman)	Dr. Markku Talvio	Finnish Food and Drink Industries Federation
Group Vice President, R&D, OA/QC	(Secretariat)	R&D manager
Leaf Group Headquarters	EIM Ltd Oy	P.O. Box 115
Burgemeester Rijnderslaan 26, P.O. Box 49	Managing Director, c/o Orion-Pharma	SF-00241 Helsinki
NL-1180 AA Amstelveen	P.O. Box 65	
Tel: +31 20 656 21 00	SF-02101 Espo	
Fax: + 31 20 656 21 66	Tel: +358 9 429 36 27	Tel: +358 9 14 88 72 40
	Fax: +358 9 429 20 20	Fax: +358 9 14 88 72 01
	E-Mail: <a href="mailto:markku.talvio@orion.fi">markku.talvio@orion.fi</a>	E-mail: <a href="mailto:hukka.salminitty@et.tliitot.fi">hukka.salminitty@et.tliitot.fi</a>

**Name** IPM - Industrial Platform for Microbiology

<b>Contact</b> Dr Lisbeth Anker, Chairman	Mrs Anne-Maie Preels, Secretariat
Director for External Relations	IPM Secretariat
Quality Assurance & Regulatory Affairs	c/o Tech-Know Consultants SPRL
Novo Nordisk A/S	Avenue de l'Observatoire, 2 (C17)
Nielssteensensvej 1	B-1180 Bruxelles
DK-2820 Centofte	Tel/fax: +32 2 3720992
Tel: +45 44438057	Email: <a href="mailto:prielam@mail.interpac.be">prielam@mail.interpac.be</a>
Fax: +45 444 38788	

**Name** IVTIP - In Vitro Testing Industrial Platform

<b>Contact</b>	Dr. Ninna Berg (Co-Chairman)	Dr. Dorothea Eigler (Co-chairman)	Dr. Helma Hermans (Secretariat)
	Novo Nordisk A/S	Dow Corning	Scientific Writing & Consultancy
	Novo Alle, 1C.19	Rue Général de Gaulle 62	PO Box 23 161
	DK-2880 Bagsvaerd	B-1310 La Hulpe	NL-3001 KD Rotterdam
	Tel: +45 44 42 24 59	Tel: +32 2 655 21 22	Tel: +31 10 43 63 725
	Fax: +45 44 42 12 38	Fax: + 32 2 655 20 13	Fax: +31 10 43 61 004
	E-Mail: <a href="mailto:nib@novo.dk">nib@novo.dk</a>		E-mail: <a href="mailto:sciwrco@wirehub.nl">sciwrco@wirehub.nl</a>

**Name** LABIP - Lactic Acid Bacteria Industrial Platform

<b>Contact</b>	Dr. Beat Mollet (Chairman)	Dr. Aat M. Ledeboer (Secretariat)
	Nestle Research Center	Unilever Research Laboratorium
	Dept. Bioscience	Olivier Van Noortlaan 120
	Vers-chez-les-Blanc	NL-3133 AT Vlaardingen
	P.O. Box 44	(PO Box 114, NL-3130 AC Vlaardingen)
	CH-1000 Lausanne 26	Tel: +31 10 460 52 39
	Tel: +41 21 785 89 30	Fax:+31 10 460 53 83
	Fax: + 41 21 785 89 25	

**Name** PIP - Plant Industry Platform

**Contact** Dr. Gert E. de Vries (Secretariat)

ProBio Partners

Meerweg 6

NL-9625 PJ Overschild

tel: +31 596 566321

fax: +31 596 566508

E-mail: [www.nord.bart.nl/~biotech/pipfront.htm](http://www.nord.bart.nl/~biotech/pipfront.htm)

**Name** SBIP - Structural Biology Industrial Platform (tentative)

<b>Contact</b>	Dr. Werner Wolf (Chairman)	Dr. Michaël Geisow (Secretariat)
t	BTC-Biotechnology Consulting	M. J. Geisow and Associates

Kreuzeckstr.5	64 Langdale Grove
D-82407 Wielenbach	Bingham
Tel: +49 881 4717	GB-NG13 8SS Notts.
fax: +49 881 40954	Tel: +44 1949 876 156
E-mail: <a href="mailto:werner_a_wolf@t-online.de">werner_a_wolf@t-online.de</a>	Fax: +44 1949 876 156
	E-Mail: <a href="mailto:biodigm@dial.pipex.com">biodigm@dial.pipex.com</a> or <a href="mailto:mike@biodigm.com">mike@biodigm.com</a>

**Name** TEP-Tissue Engineering Platform

<b>Contact</b>	Dr. Axel Haverich (Chairman)	Dr. Jean Cornier (Steering committee)	Dr. A. Bader (Steering Committee)
	LEBAO – Medizinische Hochschule Hannover	Intospace GmbH	Intospace GmbH
	Podbielskistrasse 280	Sophienstrasse 6	Sophienstrasse 6
	D-30659 Hannover	D-30159 Hannover	D-30159 Hannover
	Tel: +49 511 906 3510	Tel: +49 511 301 09 24	Tel: +49 511 301 09 24
	Fax: +49 511 906 35 69	Fax: +49 511 301 09 28	Fax: +49 511 301 09 28
	E-Mail: <a href="mailto:lebao@artificial-organs.de">lebao@artificial-organs.de</a>	E-Mail: <a href="mailto:cornier@intospace.de">cornier@intospace.de</a>	E-mail: <a href="mailto:lebao@artificial-organs.de">lebao@artificial-organs.de</a>

**Name** YIP - Yeast Industry Platform

**Contact**

Dr Jose Garcia-Bustos (Chairman)	Dr Francois Gendre	Mrs Anne-Maie Preels, (Secretariat)
Molecular Biology - Glaxo Wellcome	(YIP Steering Committee)	YIP Secretariat
C./Severo Ochoa, 2	c/o Danone TEPRAL	Avenue de l'Observatoire, 2 (C17)
E-28760 - Tres Cantos	Rue d'Oberhausbergen	B-1180 Bruxelles
Madrid	F-67200 Strasbourg	
Tel: +34 1 8070606	Tel: +33 88 274069	Tel/fax: +32 2 3720992
Fax: +34 1 8070595	Fax: +33 88 274053	E-mail: <a href="mailto:anne.marie.prieels@skynet.be">anne.marie.prieels@skynet.be</a>
Email: <a href="mailto:jfg32652@glaxowellcome.co.uk">jfg32652@glaxowellcome.co.uk</a>	E-Mail: <a href="mailto:fgendre@www.tepral.fr">fgendre@www.tepral.fr</a>	

**Appendix 6. National Authorities Responsible for SME Policy**

**AUSTRIA**

**Organisation:** Federal Ministry of Economic Affairs

**Address:** Stubenring 1  
Vienna

**BELGIUM**

**Organisation:** Ministère des Classes Loyennes, Service des Etudes

**Address:** Tour Sablon, 21ème étage  
rue J Stevens, 7  
B-1000 Brussels

**DENMARK**

**Organisation:** Ministry of Business and Industry

**Address:** Slotsholmsgade 10-12  
rue J Stevens, 7  
DK-1216 Copenhagen

**Fax:** + 45 33 12 37 78

**FINLAND**

**Organisation:** Ministry of Trade and Industry, Business Development Department

**Address:** Kluuvikatu 4A  
PO Box 230  
00171 Helsinki

**Fax:** + 358 9 160 2666

**FRANCE**

**Organisation:** Ministry of Industry

**Address:** DARPMI  
20 avenue de Ségur  
75353 Paris

**Fax:** + 33 1 43 19 27 06

**GERMANY**

**Organisation:** Federal Ministry of Economics, Policy Division of SMEs

**Address:** Ville Mombler Str 76  
53107 Bonn

**Fax:** + 49 228 615 443

**GERMANY**

**Organisation:** Verband der Chemischen Industrie e.v. (VIC)

**Address:** Abt. Wissenschaft und Forschung, Karlstrasse 21, 60329 Frankfurt

**Contact:** Dr Hans-Jurgen Klockner

**Tel:** +69 25 56 16 44

**Fax:** +69 25 56 16 20

**GERMANY**

**Organisation:** Analyti Con AG

**Address:** Gustav-Meyer, Allee 25, 13355 Berlin

**Contact:** Dr Lutz Müller-Kuhrt

**Telephone:** +69 30 46 30 7-107

**Fax:** +69 30 46 32 012

**GERMANY**

**Organisation:** Bayer AG

**Address:** Geschäftsbereich Pharma-Biotechnologie, Friedrich-Ebert Strasse 217, 42096 Wuppertal

**Contact:** Prof Peter J W Stadler

**Tel:** +69 202 36 24 27

**Fax:** +69 202 36 75 24

**GREECE**

**Organisation:** EOMMEX

**Address:** Xenias Street 16  
Athens 11528

**Fax:** + 30 1 749 1250

**IRELAND**

**Organisation:** Department of Enterprise & Employment, Enterprise Programs Division  
**Address:** Kildare StreetDublin 2  
**Fax:** + 353 1 678 5664

**ITALY**

**Organisation:** Ministry of Industry  
**Address:** Via Molise 200187 Rome  
**Fax:** + 39 6 47 88 79 26

**LUXEMBOURG**

**Organisation:** Press & Information Service of the Government  
**Address:** 43 Boulevard Roosevelt  
L-2450 Luxembourg City  
Luxembourg  
**Tel:** + 352 478 2181  
**Fax:** + 352 47 02 85

**NETHERLANDS**

**Organisation:** Ministry of Economic Affairs, Directorate for Entrepreneurship & Small Business  
**Address:** Bezuidenhoutseweg 30  
PO Box 20101  
2500 EC The Hague  
**Fax:** + 31 70 379 7403

**PORTUGAL**

**Organisation:** IAPMEI, International Department  
**Address:** Rua Rodrigo da Fonseca 73  
1279 Lisbon Cedex

**SPAIN**



**Organisation:** IMPI, Ministry of Industry  
**Address:** Paseo de la Castellana 141  
28071 Madrid  
**Fax:** + 34 1 582 9399/571 5912

#### SWEDEN

**Organisation:** Ministry of Industry and Commerce  
**Address:** Fredsgatan 8S-10333 Stockholm  
**Fax:** + 46 8 204 586

#### UNITED KINGDOM

**Organisation:** Department of Trade & Industry, Regional and Small Firms Branch  
**Address:** 151 Buckingham Palace Road  
Londonx  
**Telephone:** + 44 171 215 5000  
**Fax:** + 44 171 215 2909

### *Appendix 7. National Trade Associations*

#### AUSTRIA

**Organisation:** Austrian Society of Biotechnology (ÖGBT)  
**Address:** Kleine Sperlgasse 1/37 1030 Wein Austria  
**Tel:** +43 1 26 2242

#### BELGIUM

**Organisation:** Belgian Bio-industry Association  
**Address:** Mr Peirre Crooy Rue de Crayer 6 1050 Bruxelles  
**Tel:** +32 2 656 9300  
**Fax:** +32 2 656 8145

**DENMARK**

**Organisation:** FBID - The Association of Biotechnological Industries in Denmark  
**Contact:** Jorn L Mahler, Executive Director (ext 2240) Knud Aunstrup, President (ext 2303)  
**Tel:** +45 44 448888  
**Fax:** +45 44 444282

**FINLAND**

**Organisation:** KT - Bio  
**Address:** Ms H Kuusi c/o Chemical Industry Federation of Finland Eteläranta, 10 PO Box 4 FIN - 00131 Helsinki

**FRANCE**

**Organisation:** Organibio  
**Address:** Mr J Lunel 28 Rue Saint Dominique F - 75007 Paris  
**Tel:** +33 1 47 530912  
**Fax:** +33 1 47 537376

**GERMANY**

**Organisation:** DFG Deutsche Forschungsgemeinschaft  
**Address:** Kennedyallee 405300 Bonn 2  
**Tel:** +49 02 28885-1  
**Fax:** +49 02 28 8852221

**GERMANY**

**Organisation:** DECHEMA  
**Address:** Dr Rolf Marris  
Subject Group Biotechnology  
Theodor-Heuss-Allee 25  
60486 Frankfurt  
**Tel:** +49 068 7564 366  
**Fax:** +49 068 7564 201

**GERMANY**

**Organisation:** VBU - association of German Biotechnology Companies

**Address:** Dr Marris & Dr V Rosenbaum  
 c/o DECHEMA eV  
 Frankfurt/M

**Tel:** +49 068 7534 366 / 262 for Dr Rosenbaum

**Fax:** +49 069 7564 201

**IRELAND**

**Organisation:** Animal & Plant Health Association

**Address:** Mr D O'Brien, Dr C O'Reilly, Mr E Teehan  
 Franklin House  
 140 Pembroke Road  
 Dublin 4

**Tel:** +353 1 660 3350

**Fax:** +353 1 686 672

**IRELAND**

**Organisation:** BioResearch Ireland

**Address:** Dr Jim Ryan, Mr Seamus O'Hara  
 Forbairt  
 Glasnevin  
 Dublin 9

**Tel:** +353 1 837 0177

**Fax:** +353 1 837 0176

**IRELAND**

**Organisation:** IRDG Industry Research & Development Group

**Address:** Mr R Kavanagh, Ms C Meyers  
 Conferation House  
 84-86 Lower Baggot Street  
 Dublin 2

**Tel:** +353 1 605 1608

**Fax:** +353 1 661 1095

## ITALY

**Organisation:** Assobiotec

**Address:** Mr V Lungagnani Via Accademia 33 I - 20131 Milano

**Tel:** +39 2 268 10306/268

**Fax:** +39 2 268 10284

## NETHERLAND S

**Organisation:** NIABA

**Address:** Mr R van der Meer Vlietweg 16 PO Box 443 NL - 2260 AK Leidschendam

**Tel:** +31 70 327 04 64

**Fax:** +31 70 320 57 65

## NETHERLANDS

**Organisation:** NCR - Nationale Coöperatieve Raad voor landen Tuinbouw

**Address:** Ir AL Breure

PO Box 29774

2502 LT Den Haag

**Tel:** +31 70 338 2780

**Fax:** +31 70 354 6643

## NETHERLANDS

**Organisation:** Nefyto

**Address:** Mrs MLC van Assen

PO Box 80523

2508 GM Den Haag

**Tel:** +31 70 354 4851

**Fax:** +31 70 354 9766

**NETHERLANDS**

**Organisation:** NVZP - Dutch Seed Trade Association  
**Address:** Ir AC van Elsen  
PO Box 909  
3700 AX Zeist  
**Tel:** +31 30 693 3135  
**Fax:** +31 30 693 2951

**SPAIN**

**Organisation:** Asociacion de Bioindustrias  
**Address:** Mr J Guixer C/Bruc N 72-74 6 Planta E-Barcelona  
**Tel:** +34 3 4874000  
**Fax:** +34 3 4876520

**SWEDEN**

**Organisation:** NUTEK - National Board for Industrial & Technical Development  
**Address:** Dr Magdalena Ehrstrom  
S-10387 Stockholm  
**Tel:** +46 8 681 9368  
**Fax:** +46 8 199 280

**SWEDEN**

**Organisation:** SIK - Institute for Food & Biotechnology  
**Address:** Mr Guno Haska, Mr Magnus Glad  
Ideon, Ole Romers vag 12  
S - 223 70 Lund  
**Tel:** +46 31 355600  
**Fax:** + 46 31 833782

**UNITED  
KINGDOM  
M**

**Organisati** Confederation of British Industry (CBI)

**on:**

**Address:** Dr Janet Asherson Head of Health, Safety and Land Use Environmental Affairs Centre Point 103 New Oxford Street

London WC1A 1DU

**Tel:** + 44 171 379 7400 ext 2915

**Fax:** +44 171 240 1578

**UNITED  
KINGDOM**

**Organisation:** Association of the British Pharmaceutical Industry (ABPI)

**Address:** Dr Jeff Kipling

Director of Science and Technology

12 Whitehall

London SW1A 2DY

**Tel:** +44 171 747 1408

**Fax:** +44 171 747 1413

**UNITED  
KINGDOM**

**Organisation:** BioIndustry Association (BIA)

**Address:** Dr John Sime Chief Executive 14/15 Belgrave Square London SW1X 8PS

**Tel:** +44 171 245 9911

**Fax:** +44 171 235 4759

**UNITED KINGDOM**

**Organisation:** British Agrochemicals Association Ltd (BAA)

**Address:** Tony Pike, Director

Dr Anne Buckenham, Deputy Director

4 Lincoln Court

Lincoln Road

Peterborough PE1 2RP

**Tel:** +44 349 225

**Fax:** +44 1733 62523

**UNITED KINGDOM**

**Organisation:** British In Vitro Diagnostics Association (BIVDA)

**Address:** Kit Madden  
Executive Director  
1 Queen Anne's Gate  
London SW1H 9BT

**Tel:** +44 171 957 4633

**Fax:** +44 171 957 4644

**UNITED KINGDOM**

**Organisation:** British Society of Plant Breeders Ltd (BSPB)

**Address:** Dr Roger G Turner  
Chief Executive  
Woolpack Chambers  
Market Street  
Ely Cambs. CB7 4ND

**Tel:** +44 1353 664 211

**Fax:** +44 1353 661 156

***Appendix 8. Contact List for Eurotech Capital***

GED – Grupo de Empresas de Desarrollo (SEPI) – Spain Sofinnova France

The Spanish financial group operates through a network of venture capital companies with an investment capacity of ECU 70 million and manages a venture capital fund of the EBRD and the EU amounting to ECU 70 million in Romania. The main activity of the group is the provision of equity funding for SMEs and the management of funds

Sofinnova is an independent venture capital company with an investment capacity of ECU 90 million, active in high technology, particularly information technology, health-care and biotechnology. Its high-tech specialists invest in a minority stake and favour financing in the early stages of a company. Sofinnova does not take part in the management of the company, but most of the time has an active role on the board of directors.

**SOFINNOVA (F)**

***GED-GRUPPO DE EMPRESA DE  
DESAROLLO (SEPI) (E).***

*Mr Jean-Bernard Schmidt  
51 rue Saint Georges, F-75009 Paris*

Tel: (33) 1 44535305; Fax: (33) 1 45267892

Mr. PUERTAS HERNANDEZ

8, Plaza Marques de Salamanca, E-28071  
Madrid

Tel:(34)91 396 1274; Fax: (34) 91 396 1034

Eurosud Capital  
France/Italy

Eurosud Capital was formed by companies in regional equity finance. They have acquired a European dimension through forming this association with an investment capacity of ECU 80million. This financial entity covers southern Europe, including five European frontier regions from Barcelona to Genoa, and it has also turned towards Morocco, Tunisia the Adriatic and eastern countries. The companies which constitute Eurosud Capital are Ligur Capital and Marche Capital for Italy, IRDI (in the Midi-Pyrénées region), SORIDEC (Languedoc Roussillon) and Sud Capital (Provence Côte d'Azur) for France and finally, Catalana d'Intictives CR for Spain. This grouping of venture capital companies also includes two associated members: SPPI in Tunisia and Moussahama SPPP in Morocco.

SOcietà FInanziaria di  
PArtecipazione (SOFIPA)  
Italy

SOFIPA, was established in 1983 to provide equity capital, primarily to medium-sized companies in Italy. SOFIPA has circa ECU 160 million under management and invests across a broad range of industry sectors mainly in later stage opportunities, for example providing expansion capital or backing management buy-out and buy-ins. SOFIPA actively assists investee companies with their development plans and has an in-house Mergers & Acquisitions (M&A) division. SOFIPA has offices in both Rome and Milan and SOFIPA International, which invests outside of Italy, is located in Brussels.

Euroventures Benelux Team  
Benelux

Euroventures Benelux manages two funds with an investment capacity of ECU 85 million and is a member of the largest independent pan-European venture capital network. Euroventures Benelux provides early stage and development capital and participates in buy-outs, turn-arounds and take-overs of companies with a European perspective without any preference of sector or industry. Both funds are now completely invested and Euroventures Benelux is concentrating on the exits of its investments. The result is that no new participations are being considered. A new initiative is located



in the Information Technology sector.

**SOFIPA (I)**

*Mr Mogavero*

*Via Paisiello 39, I-00198 Rome*

*Tel: (39) 6 8550300; Fax: (39) 6 85302559*

**EUROVENTURES BENELUX (B-NL-L)**

*Mrs VERMASSEN*

*H Henneaulaan 336, B-1930 Zaventem*

*Tel: (32) 2 7251838; Fax (32) 2 7214435*

*E-mail: evbnlzav@tornado.be*

Rothschild Bioscience Unit

United Kingdom

The Rothschild Bioscience Unit (RBU) was established within Rothschild Asset Management in 1987 to act in an advisory capacity to Biotechnology Investments Ltd., a global oriented fund focused on start-up and early stage biotechnology companies. In 1994, RBU also became responsible for the management of the International Biotechnology Trust Plc. which invests in under-funded or under managed biotech companies with products that are already in clinical development and/or appear to have good commercialisation prospects. The RBU has at present ECU 435 million under direct management. The RBU team is multidisciplinary, with backgrounds in science, industry, finance and management, enabling it to provide comprehensive advice and support to investee companies. The investment team works with a number of internationally renowned scientific and industry consultants who help to assess new technologies and investment proposals as well as supporting investee companies. RBU operates on a global basis, covering North America, Europe South East Asia and the Far East.

Gilde Investment Funds  
Netherlands

Gilde Investment Funds, founded in 1982, is a Dutch venture capital company independent of any financial entity with an investment capacity of ECU 750 million. Its hallmarks are its international investment strategy (Europe and the United States) and its active involvement in managing the companies it supports, with the aim of promoting rapid growth. Gilde provides classic venture capital focusing on the IT-sector (hard & software and communications). In addition Gilde invests in buy-out and buy-in situations. More than three-quarters of its investments are syndicated.

**GILDE INVESTMENT FUNDS (NL)**

***ROTHSCHILD BIOSCIENCE UNIT (UK)***

*Mr T. ZEEUW*

*Mr Pieta Stam*

*Newtonlaan 91, NL-3508 AB Utrecht*

Five Arrows House, St. Swithin's Lane, UK-  
London EC4N 8NR

Tel: (44) 171 623 1000; Fax (44) 623 6261

E-mail: [tanneke.zeeuw@ramasset.co.uk](mailto:tanneke.zeeuw@ramasset.co.uk)

Tel: (31) 30 2510534; Fax: (31) 30 2540004

E-mail: [info@gilde.nl](mailto:info@gilde.nl)

Danish Development Finance Corporation (DDFC)  
Denmark

Danish Development Finance Corporation, founded in 1988, is a Danish venture-capital company independent of any financial entity, with an investment capacity of ECU 70 million.

DDFC's investment strategy focuses primarily on three industries; life sciences, information technology and engineering. DDFC plays a role as an active sparring partner for the portfolio companies and takes active part in the internationalisation process.

**DANISH DEVELOPMENT FINANCE  
CORPORATION (DK)**

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*E-Mail: [101354.3700@compuserve.com](mailto:101354.3700@compuserve.com)*

Alta Berkeley Associates  
United Kingdom

Alta Berkeley Associates is a privately-held venture capital group with an investment capacity of ECU 100 million. Its investment strategy focuses primarily on three industries: health-care, media/communications and information services. Investments in these areas are made on a Pan-European basis with no attempt to focus on any specific European country. Within these geographic and industrial parameters, companies are financed

Techno Venture Management (TVM)  
Germany

TVM is one of the leading independent German venture capital fund with a focus on technology investments. Areas of interest are computers, network technologies, software, tele-communications and medical/biotech. Founded in 1983, TVM manages several funds for investments in Germany, Western Europe and the USA. The total fund volume is of ECU 265 million. TVM's headquarters are in Munich/Germany and other offices are located in Boston and Los Angeles/USA. TVM concentrates on international/multinational investments within Europe and the USA. Investments are usually syndicated with other European and US venture capital funds.

**TECHNO VENTURE MANAGEMENT (D)**

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*Fax: (49) 89 99899255/6*

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Finovelec  
France

Finovelec is a French joint-stock company with twin status as an innovative finance company and a venture company. Finovelec has an investment capacity of ECU 53 million and invests exclusively in high potential start-up or fast growing companies. The list of its investing areas includes electrical engineering, scientific and technical companies, robotics, telecommunications, medical appliances and biotechnologies. Investments are

at any stage of development, from start-up to geographically diversified (France, Europe, buy-out. USA).

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*Fax: (44) 171 7346711*

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**FINOVELEC (F)**

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Sitra  
Finland

SITRA is an independent public fund responsible to the Finnish Parliament and has an investment capacity of ECU125 million. SITRA's role is to strengthen links between research and both the business sector. SITRA invests in Finnish and international high-tech companies and funds and finances management buy-outs and corporate venturing. It has also invested into several international funds like Advent GPE, AVIII, Euroventures Nordica II, HATT II, Baltic Venture Fund, Russian Technology Fund and Northwest Russia Regional Venture Fund. SITRA was established in 1967 and it has been the pioneer in the venture capital field in Finland.

**SITRA (FIN)**

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Euroventures Management  
Sweden

Euroventures Management, founded in 1985, is one of the leading venture and development capital management companies in the Nordic countries. The company manages five funds: Euroventures Nordica I, Euroventures Nordica II, Swedetech, Swedestart and the Baltic rim fund. The investment focus of both Nordica I and II has been to invest in small to medium sized industrial companies. The focus of Swedetech is to invest in Swedish medium-sized industrial companies. Swedestart invests in Swedish start-ups and small companies and the Baltic Rim Fund invests in medium-sized Swedish, Danish and Finnish industrial companies with expansion potential in the Baltic Sea Region.

**EUROVENTURES MANAGEMENT (S)**

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**ASSOCIATED MEMBERS**

Horizonte Venture Management (Austria)

Horizonte, founded in 1985, is the first and presently largest venture capital company in Austria. It is majority-owned by the

management with minority stakes owned by Advent Intl. and FGG. Horizonte concentrates on technology-driven growth companies in and around Austria as well as investments in transition opportunities in the territory of former Yugoslavia. Funds under management currently amount to ECU 28 million.

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*E-mail: horizon@ping.at*

***Appendix 9. Innovation and Technology Equity Capital (I-TEC)***

*for technologically innovative SMEs*

***- List of selected venture capital operators -***

***- April 1998 -***

***Operator : Sofinnova Partners***

***Contact : Mr. Jean-Bernard SCHMIDT***

***Address : 51, rue Saint Georges***

***F-75009 PARIS***

***Fax : + 33 1 45 26 78 92***

***Website : http://www.sofinnova.fr***

***Coverage : European Union +Associated States***

***Special focus: F***

***Invest. focus: Information technology; Life sciences; Healthcare; Biotechnology.***

***Operator : Alta Berkeley Associates***

***Contact : Mr. Hugh SMITH***

***Address : 9/10 Savile Row***

***W1X 1AF LONDON, UK***

**Fax :** + 44 171 734 6711

**e-mail :** [hugh.smith@alta-berkeley.co.uk](mailto:hugh.smith@alta-berkeley.co.uk)

**Coverage :** European Union +Associated States

**Invest. focus:** Healthcare & life sciences; Media & communications; Information services.

**Operator :** *Prelude Technology Investments*

**Contact :** Dr. Robert HOOK

**Address :** Sycamore Studios, New Road

CB4 5PJ OVER, CAMBRIDGE, UK

**Fax :** + 44 1954 288099

**e-mail :** [prelude@dial.pipex.com](mailto:prelude@dial.pipex.com)

**Coverage :** European Union + Associated States

**Special focus:** UK

**Invest. focus:** Life sciences (biopharmaceutical, healthcare); Physical sciences (electronics & computer related); Materials; Information sciences, software & communications.

**Operator :** *MTI Partners*

**Contact :** Dr. Paul CASTLE

**Address :** 99 Langley Road

WD1 3PE WATFORD, UK

**Fax :** + 44 1923 247783

**e-mail :** [headoffice@mtifirms.com](mailto:headoffice@mtifirms.com)

**Coverage:** UK

**Invest. focus:** IT; Software; Communications; Electronic hardware & devices;

Life Sciences; Materials technology.

**Operator :** *Horizonte Venture Management*

**Contact :** Dr. Franz KREJS

**Address :** Bauernmarkt 6,

A-1010 VIENNA

**Fax :** + 43 1 533 56014

**e-mail :** [horizont@ping.at](mailto:horizont@ping.at)

**Coverage :** European Union + Associated States

**Special focus: A**

**Invest. focus:** Information technology (software, multimedia & networks); Biotechnology & medical (immunology & treatment of allergies); Microstructure technology (semiconductors, micro-nano engineering); Environmental technology.

**Operator : *Capricorn Venture Partners***

**Contact :** Dr. Jos B. PEETERS

**Address :** Parijsstraat 74,

B-3000 LEUVEN

**Fax :** + 32 16 29 38 71

**e-mail :** [capricorn@capricorn.be](mailto:capricorn@capricorn.be)

**Coverage :** European Union + Associated States

**Special focus: B (NL, D, F, L)**

**Invest. focus:** Life sciences (biopharmaceutical, healthcare); Information & communication technologies; Electronic & computer related technologies; Materials.

**Operator : *Technostart Beratungsgesellschaft***

**für Beteiligungsfonds**

**Contact :** Mr. Michael MAYER

**Address :** Frisonistrasse 4,

D-71636 LUDWIGSBURG

**Fax :** + 49 71 41 9715910

**e-mail :** [technostart-mayer@t-online.de](mailto:technostart-mayer@t-online.de)

**Coverage :** European Union + Associated States

**Special focus: D**

**Invest. focus:** New Technologies in life science; Materials Physical sciences; Information technology.

**Operator : *Technologieholding VC***

**Contact :** Mr. Falk STRASCHEG

**Address :** Lenbachplatz 3, D-8033 MÜNCHEN

**Fax :** + 49 89 5486 2299

**e-mail :** [stracheg@technologic Holding.de](mailto:stracheg@technologic Holding.de)

**Website :** <http://www.technologieholding.de>

**Coverage :** European Union + Associated States

**Special focus:** D, A, F

**Invest. focus:** Information, communication & multimedia; Industrial automation & process engineering; Test & measurement; New material & chemical technology; Life science & biotechnology.

**Operator :** *VCI - Beratung für*

**Technologie Investitionen**

**Contact :** Mr. Max RUEFF

**Address :** Eduard-Schmid-Strasse 7,

D-81541 MÜNCHEN

**Fax :** + 49 89 6510 26 52

**e-mail :** [100542.2611@compuserve.com](mailto:100542.2611@compuserve.com)

**Coverage :** D (A)

**Invest. focus:** Information & communication technologies; Industrial automation & process engineering; Medical & biotechnology.

## ***APPENDIX 10. LIST OF THE INNOVATION RELAY CENTRES***

<p><b>A</b> Bureau for International Research / and Technology Cooperation <b>S</b> (BIT)0 <b>F</b> Wiedner Hauptstrasse 76  A-1040 Wien</p>	<p><b>Mr Manfred HORVAT</b>  Telephone : 43158116160  Fax : 431581161616  E-mail: <a href="mailto:klamm@bit.ac.at">klamm@bit.ac.at</a></p>	<p><b>Technology Development Centre (TEKES)</b>  Malminkatu 34  P.O. Box 69  SF-00101 Helsinki</p>	<p><b>Mr Matti SUPPONEN</b>  Telephone : 3581052151  Fax : 358105215904  E-mail: <a href="mailto:matti.supponen@tek&lt;br/&gt;es.fi">matti.supponen@tek es.fi</a></p>
<p><b>B</b> Centre Relais Innovation de Wallonie (C.R.I.W.)  Avenue Prince de Liège 7  B-5100 Jambes (NAMUR)</p>	<p><b>Mr Jean Claude DISNEUR</b>  Telephone : 3281321269  Fax : 3281306600  E-mail: <a href="mailto:jc.disneur@rw.be">jc.disneur@rw.be</a></p>	<p><b>B.I.R.C. - Technopol Brussel- Bruxelles (a.s.b.l.)</b>  Rue Gabrielle Petit 4 – Bte 12  B-1080 Bruxelles</p>	<p><b>Mr Jacques EVRARD</b>  Telephone : 3224220021  Fax : 3224220043  E-mail: <a href="mailto:jacques.evrard@tech">jacques.evrard@tech</a></p>

<p><b>Vlaams Innovatie Adviescentrum</b> (VIA) IWT Brussel Bischoffsheimlaan 25 B-1000 Brussel</p>	<p><b>Mr Karel Derveaux</b> Telephone : 3222230033 Fax : 3222231181 E-mail: <a href="mailto:via@iwt.lrt.be">via@iwt.lrt.be</a></p>		
<p><b>D Erhvervsfremme Styrelsen</b> <b>K EuroCenter</b> Gregersensej Postbox 141 DK-2630 Taastrup</p>	<p><b>Ms Mette SKAKKEBAEK</b> Telephone : 4543504000 Fax : 4543716360 E-mail: <a href="mailto:euro@dti.dk">euro@dti.dk</a></p>	<p><i><u>Associate Member</u></i> <b>PUF - Ministry of Research and Information Technology</b> Bredgade 43 DK - 1260 Kobenhavn K</p>	<p><b>Mrs Anne FONNESBECH</b> Telephone : 4533929700 Fax : 4533323501 E-mail: <a href="mailto:puf@fsk.dk">puf@fsk.dk</a></p>
<p><b>F ACTION RTDA</b> Centre Condorcet 162 rue A. Schweitzer F-33600 Pessac</p>	<p><b>Mr Jacques PHALIPPOU</b> Telephone : 33556151170 Fax : 33556151175 E-mail: <a href="mailto:action@action.arciimedia.fr">action@action.arciimedia.fr</a></p>	<p><b>ATTELOR</b> 6, rue de Pont Moreau B.P. 1004 F-57036 Metz Cedex 01</p>	<p><b>Mr Remy GREGOIRE</b> Telephone : 33387318150 Fax : 33387318149 E-mail: <a href="mailto:attelor@cr.lorraine.fr">attelor@cr.lorraine.fr</a></p>
<p><b>Bretagne Innovation</b> 18, place de la Gare F-35000 Rennes</p>	<p><b>Mr Benoît NICOL</b> Telephone : 33299674200 Fax : 33299676022 E-mail: <a href="mailto:benoit.nicol@orbi.tel.fr">benoit.nicol@orbi.tel.fr</a></p>	<p><b>Chambre Régionale de Commerce et d'Industrie de Rhône -Alpes (ARIST)</b> 75, cours Albert Thomas F-69447 Lyon Cedex 03</p>	<p><b>Mr Claude SABATIN</b> Telephone : 33472114321 Fax : 33472114323 E-mail: <a href="mailto:csabatin-irc@arist-ra.asi.fr">csabatin-irc@arist-ra.asi.fr</a></p>
<p><b>Chambre Régionale de Commerce et d'Industrie de Bourgogne (ARIST)</b> 68, rue Chevreul - BP 209 F-21006 Dijon</p>	<p><b>Mr Ludovic DENOYELLE</b> Telephone : 33380635266 Fax : 33380638558 E-mail: <a href="mailto:ld-arist-b@axnet.fr">ld-arist-b@axnet.fr</a></p>	<p><b>Chambre de Commerce et d'Industrie de Paris (BRIST)</b> 2, rue de Viarmes F-75040 Paris Cedex 01</p>	<p><b>Mr Gilles WURMSER</b> Telephone : 33145083539 Fax : 33145083979 E-mail: <a href="mailto:wur@ccip.fr">wur@ccip.fr</a></p>
<p><b>Route des Hautes Technologies</b> Espace Colbert II</p>	<p><b>Mr Christian DUBARRY</b> Telephone :</p>	<p><b>Association Inter-Régionale sur la Recherche Européenne (AIRE)</b> RN-25 Lieu dit Le Ramponneau</p>	<p><b>Mrs Nathalie GERARD</b> Telephone :</p>



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